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ECONOMIC FACTORS OF JAPAN'S
NATIONAL SECURITY POLICY

by

Robin H. Sakoda

June 1988

Thesis Advisor

Claude A. Buss

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National Security Policy

by

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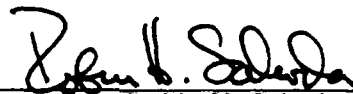
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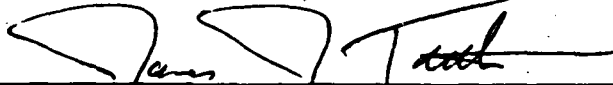
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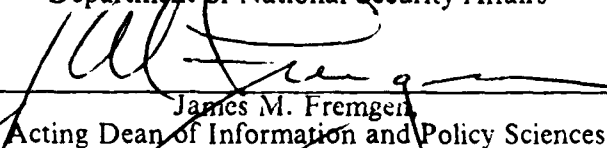
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ABSTRACT

Economic and security ties comprise the fundamental links in US-Japan relations, which have become strained by criticisms from both sides of the Pacific. As our two nations continue to pursue prosperity and security, rates of domestic consumption, trade balances, overseas investment, and technology development have become tests of bilateral cooperation.

Domestic demand, capital formation, trade and development of science and technology are fundamental concerns of the economy which contribute to Japan's national security posture. With the formation of Comprehensive Security, economic assets, more than military spending alone, have become the pillars of Japan's national security framework. To the Japanese, a strong economy is essential to Japan's national security.

This thesis analyzes the various programs the Japanese have pursued through the postwar period to build a stronger economy and the role they have played in the development and implementation of Comprehensive Security. Additionally, this thesis examines comprehensive security as it contributes to mutual US-Japan regional security in light of increasing tensions over the relative roles of economic and military strengths.

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I. INTRODUCTION

In the aftermath of world war, few envisaged the economic recovery and prosperity that followed in Japan. Shortages in the basic necessities such as food and shelter dominated the nation as poverty appeared to be Japan's returns for the Great Pacific War. With Japan's surrender, the immediate security objective was to implement political reforms in Japan with hopes of rehabilitation and recovery. The link between security and economic issues was not immediately apparent as a US-Japan relationship formed to overcome war's devastation.

The Cold War which followed the close of World War II, formed a bi-polar environment bringing the need for a US ally in Asia and by 1952, the economic relationship between the US and Japan was formally joined by a security tie. The Yoshida Doctrine expressed the national interest as it established Japan's policy for the nation's development under the premise of US-Japan security arrangements. Protection provided by the US nuclear umbrella was essential to Japan's prosperity and national security as economic diplomacy became a central theme in Japan's foreign policy. As economic growth progressed and the superstate¹ predicted by Herman Kahn became apparent, economic factors assumed a greater role in protecting Japan's national interest by shaping security policies.

The economic progress after World War II proved to be Japan's second industrial revolution, however, as with its development during the Meiji government, the problems of resource scarcity burdened economic progress. Although endowed with some coal deposits, technological progress during the 1950's and sixties shifted industrial fuel from coal to petroleum, exacerbating Japan's problem of resource scarcity. Despite these limitations, Japanese industries became successful by using the momentum of domestic markets for economic growth. With economic success came prosperity and as a result, purchasing power, or the ability to buy resources absent in the domestic economy, became a principle to secure the national interest.

The risks of this strategy were apparent as dependency on foreign materials became the premise to economic growth and the Arab oil-producing nations of the Middle East curtailed petroleum supplies for political reasons. Suddenly, Japan's

¹Herman Kahn, *The Emerging Japanese Superstate: Challenge and Response* (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1970).

national goals were linked to its political position in the Middle East and prosperity was held hostage by a foreign land known only for its abundant supply of crude petroleum.

Japan's comprehensive security policy emerged as a result of the oil embargos of 1973 and 1979, the apparent decline of US influence in international relations, and Japan's global status manifested by economic success. The policy addressed economic issues in light of the US-Japan Mutual Security Treaty and rapprochement with China, and moreover, the protection of national interests by economic assets such as technology and financial resources. Through its economic strengths, Japan improved its ability to protect national interests and assumed a role more independent of its US link.

Rapid economic progress brought tensions between the United States and Japan as a drop in crude petroleum supplies and climbing commodity prices forced Japan to increase exports. Interdependence with the global economy was essential to the nation's welfare since natural mineral resources were domestically scarce and foreign markets were vital to economic growth. Interdependence grew in terms of trade volume, overseas capital investments and technology transfers, but a growing current account surplus with the US brought trade friction between the two security partners. Economic concerns were highlighted in US-Japan relations as Americans criticized Japan for taking a "free ride" in security matters. United States current account deficits and Japanese trade barriers mobilized some American industrial leaders and legislators to prepare trade war strategies and protectionist trade legislation, threatening Japan's economy and more specifically, its prosperity and concept of comprehensive security.

Japan and the United States viewed economic tensions from different perspectives. Several Japanese enterprises and government officials blamed US government and private deficit spending as well as a decline in US industrial competitiveness for trade imbalances, while many Americans viewed an antiquated Japanese distribution system and other nontariff trade barriers as the basis of the problem. Both agreed that mis-aligned currency rates contributed to trade problems. Monetary adjustments beginning in September 1985 have made few significant gains in correcting US-Japan trade imbalances. To address domestic economic pressures and to assuage tense relations with its primary economic and security partner, Japan quickly formed plans to restructure its economy from export-led growth, to one based on domestic demand.

After two years monetary realignment, falling interest rates and growing overseas investments following the September 1985 agreement, Japan is beginning to show signs of economic growth led by domestic demand. Despite this transition, US-Japan trade tensions remain high manifested by congressional determination for protectionist legislation and retaliation for unfair trade practices. Should general protectionist legislation directed against the economies of nations with large trade surpluses become a reality, it is likely that the effect of such action will in fact challenge the security position of its closest ally in Asia, while exacerbating global economic slowdown similar to the years following passage of other protectionist bills such as Smoot-Hawley.

A. HYPOTHESIS

The hypothesis of this thesis is that Japan, in order to to sustain a viable national security posture, must maintain a strong economy manifested by good economic relations with the global community, particularly with the United States. Since Japan's Constitution and current political culture prohibits the use of military force outside its national boundaries, military capabilities assume a lesser role in overall national security affairs. In terms of economic instruments however, Japan is among the most influential nations of the world as it fosters conditions favorable to its national interests.

Security and prosperity are essential elements of Japan's national interest since these conditions facilitate global economic and political links necessary for the nation's survival. A significant aspect of Japan's national security affairs is its security relationship with the United States and the nuclear deterrence that this relationship affords Japan. However, the US nuclear umbrella alone is no panacea to all of Japan's security needs since nuclear military deterrence cannot guarantee peace nor bring prosperity. As a result the US-Japan economic relationship, which affords Japan its largest export market, access to advanced science and technology, and investment opportunities, are also important aspects of Japan's national interest. With the climbing importance of economic factors in national security affairs, Japan has embraced comprehensive security policies to secure national interests and, through its employment of economic and technological assets, relies upon its miracle economy to contribute its share to US-Japan mutual security.

This thesis will analyze the various programs the Japanese pursued through the postwar period to build a stronger economy. It will show how advances in military capabilities have sometimes been sacrificed. In each stage of Japan's development, the Japanese have been convinced that their emphasis on the economy have been as effective in contributing to mutual security as a greater emphasis in military capabilities.

The following chapters discuss economic factors in terms of Japan's domestic demand, capital assets, trade, and development of science and technology, to determine the extent to which economic factors have influenced Japanese security policies in the past; to determine the role of economics in present security policies; and to examine how Japan's security policies are likely to evolve in the future in the light of current economic realities.

B. OPERATIONAL TERMS

National security policies are implemented to protect national interests. For the United States, these policies have been a combination of efforts encompassing both national defense and foreign relations.² Although a military or defensive advantage over an adversary nation or group of nations has been a significant aspect of US security policies, Japan's concept of national security places less emphasis on military defense. Instead, the economic prosperity which has developed since the close of world war, bolsters national security, making Japan more influential in global relations.

Economics in this study refers to the ability to effectively use available assets, such as land, labor, capital and technology, to meet domestic demands as it relates to national security. Domestic demands are the needs of the nation's consumers, which comprise private households, industries, and government. Statistically, domestic demand is obtained by subtracting exports from Gross Domestic Product (GDP).

The following chapters analyze the development of Japan's national security policies in terms of its economic development, specifically in the areas of domestic demand, exports, capital formation and flows, and technological applications from 1945 to 1988. Chapter Two examines the years during which Japan was under US occupation. Japan's postwar years from 1945 to 1952 witnessed the economic despair of poverty and starvation, in addition to a new relationship with the United States manifested by economic aid and a security treaty. Chapter Three analyzes the years

²Department of the Defense, *Dictionary of Military and Associated Terms* (Washington, DC: Department of Defense, June 1, 1979), p. 228.

from 1952 to the first oil crisis in 1973 during which time Japan underwent rapid economic growth and the transformation from a Western liability to asset, by becoming the model to which developing nations aspired. Although Japan's economic miracle developed during these years, the period also witnessed the beginning of trade tensions between the two allies with US pressure for Japan to contribute more to the security of Asia. Chapter Four then analyzes the years after the 1973 oil crisis to 1988, focussing on the passing of *Pax Americana*, the security of Japan's prosperity in light of the two oil crises, economic tensions with the United States, and Japan's contributions to security affairs as an international leader. This study concludes with a chapter on likely near term developments in US-Japan security issues, in light of current trends.

II. SECURITY AND ECONOMIC FACTORS 1945-1952

After the Sino-Japanese War of 1894-5, Japan's Imperial military forces fueled ultra-nationalism which urged hegemony over Asia. The Pacific War, in pursuit of Greater East Asian Co-prosperity goals, eventually drained Japan of its economic wealth, military might, and vision as leader of an international hierarchy.³

The security and economic factors in Japan between 1945 and 1952 were effects that followed over a decade of conflict in Asia and economic stress of supporting military actions. At war's end in September 1945, Japan bore an economy that was in ruins and the stigma of an aggressive, irresponsible military power.

The Supreme Command Allied Powers' (SCAP) occupation of Japan, headed by General Douglas MacArthur, sought to disarm Japan so that it would no longer threaten peace and security in Asia, and encourage the development of responsible government supported by the freely expressed will of the Japanese people. The Occupation's purpose in Japan can be best described in its two distinct phases: from 1945 to 1947 the occupation's mission focussed on political and military reforms, so that Japan never again be a menace to peace in Asia, while the phase from 1948 to 1952 aimed to assist Japan in its efforts toward economic recovery, so that Japan could join the forces committed to stability and peace.

Japan's security development during the final years of occupation are evident in its Constitution of 1947, the multilateral peace settlement and mutual security arrangements with the United States established by the Treaty of 1952. After national security measures were provided, Japan addressed the problem of its own economic recovery. Recovery was systematically pursued in its policies of meeting the consumer demands of its people; providing the capital and labor assets required for continued growth, while concentrating on its export industries; and making adequate provisions for research and development to apply new technological innovations toward economic growth. While Japanese leaders concentrated on economic recovery, Cold War conditions convinced General MacArthur that an economically stable and prosperous Japan would best serve US interests in Asia.

³Ruth Benedict, *The Chrysanthemum and the Sword*. (Boston, MA: The Riverside Press, 1946), p. 20-42.

A. SECURITY DEVELOPMENT

By the close of World War II the negative effects of Japan's political character and military power on international order were staggering. MacArthur's immediate goal after Japan's surrender in September 1945 focussed on establishing political reforms and dismantling Japan's military power. While institutionalizing concepts of democracy, he guided the emperor's government, denouncing violence as an instrument of foreign policy.

The new constitution, effective May 3, 1947, was a reflection of MacArthur's political reforms as it reshaped Japan's perspective toward international relations. Article 9, the anti-war clause, established the new pacific character of postwar Japan, shaping the framework of national security policies by stating:

Aspiring sincerely to an international peace based on justice and order, the Japanese people forever renounce war as a sovereign right of the nation and the threat or use of force as a means of settling international disputes.

In order to accomplish the aim of the preceding paragraph, land, sea and air forces, as well as other war potential, will never be maintained. The right of belligerency of the state will not be recognized.

Although the Chinese and Southeast Asian victims of militaristic Japan viewed this renunciation of war with much skepticism, Article 9 appealed to many Japanese who were forced to "bear the unbearable" as the outcome of Japan's War of Greater East Asia.

MacArthur's zeal for political reform however, worried US officials in Washington since, in their view, rapid political alterations precipitated instability leaving Japan susceptible to Communist subversion. As a result, the architect of America's containment strategy, George Kennan, was sent to Japan in February 1948 to express Washington's latest concerns. Upon arriving in Japan, Kennan was surprised to find relations between Washington and America's Occupation headquarters more distant than anticipated. He later wrote: "so distant and so full of mistrust that my mission was like nothing more than that of an envoy charged with opening up communications and arranging the establishment of diplomatic relations with a hostile and suspicious foreign government."⁴ Despite existing conditions,

⁴George Kennan, *Memoirs: 1929 to 1950* (Boston, MA: Little and Brown and Co., 1967), p. 368-96.

Kennan and MacArthur stood on a common ground as both men recognized a rising Communist threat in Asia.

As the international environment became absorbed in Cold War, the US emphasis on security objectives in Japan became more apparent. American interests in Asia began to see Japan as a strategic territory of critical importance to its own security as the communist revolution in China approached its climax.⁵ Events of 1949 heightened US concerns as Mao Zedong succeeded in establishing communist rule in China. In the same year communist military power increased tensions as the Soviet Union detonated its first nuclear device. Outbreak of the Korean War a year later brought the return of US troops to Asia. Instability in the region and America's need for an Asian ally served to bolster Japan's nascent alliance with the United States.⁶

The Korean War influenced Japan's direction in security affairs and accelerated US efforts for a peace settlement with Japan. In response to America's containment strategy, MacArthur pressured Japan to establish a 75,000 man National Police Reserve (NPR) in July 1950. Formation of a self-defense force did not conflict with Prime Minister Ashida's interpretation of Article 9 since its intention was to protect Japan from external threats, and was restricted to national boundaries. The "Ashida - Kiyose Interpretation," as it was later called, became the founding argument legitimizing Japan's maintenance of Self Defense Forces. The NPR was renamed the National Safety Force and was increased to 110,000 men when the San Francisco Peace Treaty and Mutual Security Treaty with the US became effective in 1952.⁷

The Cold War environment and outbreak of the Korean War served to emphasize US security interests in Asia and accelerated the process of incorporating Japan into the company of the free world against communist expansion. As a result, US interests called for measures to end the occupation and restore sovereignty to the Japanese government; these interests served to accelerate a peace settlement and meld the United States and Japan as security partners in Asia.

⁵Chalmers Johnson, *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925-1975* (Stanford CA: Stanford University Press, 1982), p. 189.

⁶James C. Thomson, Peter W. Stanley and John C. Perry, *Sentimental Imperialist: An American Experience in East Asia* (New York, NY: Harper and Row Publishers, 1981), p. 250.

⁷Satoh Yukio *The Evolution of Japanese Security Policy* Adelphi Paper No. 178 (Dorking, Great Britain: Bartholomew Press, 1982) p. 2.

On September 8, 1951 in San Francisco, effects of the Cold War were evident as forty-eight of the fifty-five powers at war with Japan concluded a multilateral peace treaty: Communist powers refused to sign. The peace treaty recognized Japan's right of self-defense and within hours after its conclusion, to the surprise of the Soviet Union, the Mutual Security Treaty (MST) was signed reinforcing US-Japan security interests in Asia.⁸

As the peace treaty became effective on April 28, 1952, the mission of US forces in Japan changed from domestic regulation to mutual national security. The MST changed the nature of US military presence in Japan as it allowed American forces to remain for an unspecified period to assume indefinite responsibility for Japan's defense.

B. ECONOMIC FACTORS

Japan's new character established by its Peace Constitution, the security implications of Cold War, economic despair, and the newly formed alliance with the United States all shaped a foreign policy which pursued Japan's primary national interest of economic recovery. Although pacific idealism was strong among the Japanese after enduring the hardships of world war, formation of a self-defense force and a security arrangement with the United States was a prudent compromise considering the realities of the global climate. In light of Cold War tensions, Prime Minister Yoshida bore the responsibility of resuming trade with the United States, Western Europe, and Southeast Asia, without which economic recovery was impossible.

The *Yoshida Doctrine* formed under the above conditions, established three foreign policy principles for Japan.⁹ The first principle maintained a Japanese foreign policy concept established by the Meiji leaders in 1868 called *boeki rikkoku* or "building a nation by expanding trade." Renamed *keizai gaiko*, or "economic diplomacy," Yoshida sought to achieve economic recovery by accelerating trade and hoped to wield international influence by economic means. Through economic diplomacy, Japan hoped to focus on the economic aspects of international relations, thereby separating trade issues from political issues. By making such a separation, Japan hoped to become an enemy with no nation, while conducting trade with every country.

⁸Dean Acheson, *Present at the Creation: My Years in the State Department*, (NY, New York: W. W. Norton & Co., 1969), p. 539-50.

⁹Nishihara Masashi, "How Much Longer the Fruits of "the Yoshida Doctrine"?" *Journal of Asiatic Studies*: 22 (1979) 1, p. 79-80.

Economic diplomacy reflected Japan's pacific nature by emphasizing international relations in economic terms. The principle of economic diplomacy was especially significant to Japan's domestic economy in light of the security arrangement with the U.S. By forming a security agreement with the world's foremost superpower, Japan could fully tend to economic recovery. In exchange for providing US military bases, Yoshida and many of his successors minimized defense concerns, particularly in terms of defense appropriations, and focussed their efforts on economic growth.

To address the communist challenge presented by the Cold War environment, Yoshida's second principle was with a futuristic vision of contributing to a more economically viable Asia capable of resisting communist influence. In addition to resisting communist influences, a free Asia would also best serve Japan's economic interests by promoting regional trade.

The third principle focussed on supporting a strong United Nations. Not only did the UN parallel the pacific sentiment of Japan, the organization served to reintroduce Japan to the international community. Close international relations was vital since Japan sought economic recovery as a market-oriented democracy. For these reasons Yoshida hoped to obtain membership immediately after regaining sovereignty.

As the US was interested in security, the Japanese emphasis went to nurturing its economic development. It is evident that Japan's national interest to rebuild its war torn nation was heavily dependent on global economic interaction and support from the United States. Japan's security development was a function of US guidance and as sovereignty was restored, security matters were linked to the United States by the MST. Since the Japanese Constitution and economic ruin limited the nation's ability to provide for its own security, the link formed by the MST demonstrated Japanese dependence on the US for a security umbrella.

World war destroyed much of the economic foundation which had developed since Meiji Japan. Twenty percent of Japan's homes were destroyed by air raids; in the major population centers of Japan, Tokyo and Osaka lost over 50 percent of their dwellings. More crucial to the nation's economy, the war left 30 percent of Japan's industrial capacity and 80 percent of its shipping in ruins. At war's end, industrial production stood at scarcely 10 percent of the normal prewar level.¹⁰ Coal production, vital to Japan's economy, fell drastically after the war as output fell from over 4,000,000 tons per month to 554,000 tons in November 1945. During this economic

¹⁰ Mikiso Hane, *Modern Japan: A Historical Survey* (Boulder, CO: Westview Press, 1986), p. 341.

deterioration, the Japanese people underwent a bitter struggle for survival remembered as the "prison of hunger."¹¹ Although the goal of economic recovery was vital, recovery policies were much in contention.

1. Recovery Policies - Production vs. Stabilization

SCAP and Japanese government officials encountered their first major disagreement of the postwar period over the problem of economic recovery policies. Debate focussed on whether reconstruction policies should give priority to production (*fukko setsu*) as a means toward recovery, or price stabilization and control of inflation (*tsuka kaikaku setsu*).

a. Priority Production

As Finance Minister in the first Yoshida cabinet (May 1946-May 1947), Ishibashi Tanzan argued for increased production as a strategy for economic recovery with the following logic:

The current economic crisis is not one of inflation, but rather a surplus of unused labor and production facilities. The only way to get out of it is to increase production.¹²

The plan called for financial support of industrial production facilities through war claims payments and price support subsidies; inflationary effects were to be limited by issuing new currency. The priority production plan incorporated this logic as Japanese officials implemented their plans for economic recovery.

The priority production policy, implemented by Japan's Ministry of Commerce and Industry (MCI) in 1947, concentrated economic assets in three strategic sectors: coal, steel and fertilizer production. Japanese policy makers believed overall industrial production would increase as a result of government support for coal and steel production. Fertilizer production was added to the policy to increase domestic food production.

Japanese officials were cognizant of the detrimental effects of this policy to civilian consumption and inflation. To support production and increase demand, government corporations (*kodan*) purchased major commodities from producers at high prices and sold them to consumers at low prices, covering the difference through price subsidies from the government's general account.¹³ As Table 1 indicates, the priority

¹¹Johnson, p. 177.

¹²*Ibid*, p. 178.

¹³Johnson, p. 183.

production policy caused government subsidies and losses to increase at an alarming rate, peaking in 1949. Deficit spending aggravated inflationary conditions which became evident in rocketing prices. In 1946 the wholesale price index increased 364 percent, in 1948 it increased 196 percent and 1948 experienced an increase of 166 percent.¹⁴

TABLE 1
GOVERNMENT SUBSIDIES AND INDEMNITIES, 1946-1952

Year	Total General Account	Subsidies	Indemnities for Losses
1946	115,207	3,731 (3.2%)	22,661 (20.0%)
1947	205,841	28,178 (13.7)	8,566 (4.2)
1948	461,974	93,118 (20.2)	16,632 (3.2)
1949	699,448	179,284 (25.6)	31,838 (4.6)
1950	633,259	60,162 (9.5)	7,830 (1.2)
1951	749,836	26,975 (3.2)	9,560 (1.3)
1952	873,942	40,308 (4.6)	8,183 (0.9)

Inflationary conditions finally peaked in 1949 when MacArthur imposed the Economic Stabilization Plan.

b. Economic Stabilization Plan - "The Dodge Line"

By 1948, SCAP shifted its efforts from political reform to economic recovery. Determined to see Japan transform from liability to economic asset for the free world, SCAP formed the Economic Stabilization Plan. The Plan, issued on December 19, 1948, sought to control inflation and stabilize prices through stringent fiscal controls. The significant aspects of the policy were:

- Balance the nation's budget
- Strengthen the tax collection process
- Limit Reconstruction Finance Bank (RFB) loans
- Improve controls over foreign trade and US aid
- Increase production

¹⁴Edward F. Denison and William K. Chung, *How Japan's Economy Grew So Fast: The Sources of Postwar Expansion* (Washington, DC: The Brookings Institute, 1976), p. 11.

Although this plan imposed harsh conditions on the people, the policy aimed to prepare Japan for international trade as economic relief called for increased Japanese exports.

The United States' contribution to Japan's economic recovery went much further than drafting stabilization plans. Although responsibility for implementation fell on the Japanese government, MacArthur also provided the expertise of Joseph M. Dodge, a former Detroit Banker and financial advisor to General Lucius D. Clay in Germany, to advise and monitor Japanese progress in implementing stabilization policies.

Working with Yoshida's Finance Minister Ikeda Hayato, Dodge prepared the Japanese economy for international commerce. The government operated on an overbalanced budget, created the Japan Export-Import Bank, the Japan Development Bank, and established a dollar to yen exchange rate which lasted until 1971. Although tight fiscal policies brought unemployment and a significant slump in demand, the "Dodge Line" as these policies became known, were responsible for bringing an end to runaway inflation and skyrocketing prices.

By June 25, 1950, when North Korean forces attacked across the the 38th parallel, Japan's economy was prepared to take advantage of logistical demands created by war. As conflict on the Korean peninsula increased, the Korean War brought the need for a US supplier as well as security partner in Asia, a role Japan was eager to assume.

2. Demand

Domestic demand for essential commodities during 1945 to 1947 was the immediate problem in Japan as food supplies vanished and Japan approached mass starvation. As US assistance averted this disaster, foreign demand for Japanese products was essential to postwar recovery.

After relinquishing control of occupied areas, Japan's territory and sources for raw materials were significantly reduced. Millions of Japanese repatriated from Manchuria, Korea, Taiwan and Southeast Asia returned to the already crowded Japanese islands exacerbating demands on food supplies. By the spring of 1946, when US occupation authorities brought food to the starving nation, food rations limited consumption to 1,050 calories per individual per day, and even this was a level that few Japanese could obtain.¹⁵ Although United States assistance in 1946 averted mass

¹⁵Hane, p. 343.

starvation in Japan, it was not until intervention in the Korean War that US demand for Japanese goods significantly aided recovery efforts.

US intervention in the Korean War extended logistical lines across the Pacific Ocean which increased transportation costs and reduced supply responsiveness to forces on the Korean peninsula. Japan's growing industrial capacity, cheap labor, and proximity to US combat forces were factors which merged United States' and Japan's immediate interests. As the Korean War dragged on, US demand for Japanese goods brought the two countries closer together. Japanese production became a vital link for US logistical support as orders were placed with Japanese firms for ammunition, uniforms, communications equipment and other military related products.

During the four years that followed the outbreak of the Korean War, US special procurements brought \$2.37 billion to the Japanese economy.¹⁶ US demand for Japanese trucks alone during the Korean War brought orders for 7,079 vehicles, worth \$13 million; these orders typified the boost to Japan's economy as US demand provided the necessary stimulus to revive Japan's automobile industry.¹⁷

3. Capital

Capital was essential to priming the economic pump and methods to overcome its shortage were fundamental in the effort to fuel economic recovery. Japan's capital assets had been squandered as a result of its wartime economy. However, even after its surrender the Japanese government upheld its commitments to wartime contracts in an attempt to maintain its fledgling industries. Government obligations were met by disbursing new yen notes which brought the inflationary conditions of 1946-1948. In mid-1946, SCAP took drastic action. It ordered the government to stop payments and default on its wartime commitments. But even this failed to stop rising inflation as Japan's Reconstruction Finance Bank flooded the economy with new currency.

With the shift toward economic recovery in 1948, SCAP sought to provide the necessary capital by drawing on US appropriated aid. Introduction of SCAP's stabilization plan brought a gradual end to inflationary conditions which would have evaporated the value of these politically sensitive funds. The Government Appropriations for Relief in Occupied Areas (GARIOA) and Economic Rehabilitation of Occupied Areas (EROA) provided US funds necessary for Japan's incipient recovery, and by 1952 appropriated over 2 billion dollars. The GARIOA Fund was

¹⁶Johnson, p. 200

¹⁷*Ibid.*, p. 227.

limited to the provision of aid to prevent social unrest and sickness; much of these funds were used for the distribution of food and medical supplies. EROA Funds however, provided Japan with raw materials needed for economic recovery and the rehabilitation of Japan's industry and export trade.¹⁸

These funds were instrumental in reestablishing Japan's industries and were therefore largely responsible for the nation's successful recovery and subsequent "economic miracle." Funds were necessary to purchase essential capital goods for factories, raw materials for industrial production, and foreign technology to fill the gap of industrial "know-how" between Japan and the most advanced nations. By importing new equipment, Japan was able to incorporate the latest technologies in industry and by re-tooling its production facilities, become more efficient. As a developing country, Japan discovered it was more efficient to license or buy new technology from the most developed countries than to domestically develop technology under economically austere conditions. Due to America's financial aid directed toward capital facilities, Japan quickly became an industrial-efficient country.¹⁹

4. Labor

Japan entered the postwar period with few economic assets; the greatest exception to this however, was an abundance of unemployed, cheap, and highly skilled labor. Japanese strengths in education were largely responsible for this abundance while the war production economy of the 1930's had already shaped the psychological framework and necessary expertise for the nation's recovery. MacArthur's vision of Japan's future however, caused fundamental changes in the nation's attitudes toward labor.

While many of the senior officials in both Washington and SCAP Headquarters held lingering spite for the Japanese, MacArthur's vision of his role in Japan was to bring the defeated nation into the modern era as a successful democracy. In March 1945, MacArthur was already thinking of his plans for postwar Japan, knowing that Japan's defeat would make America the most powerful nation in Asia. In this light, he said: "If we exert that influence in an imperialistic manner, or for the sole purpose of commercial advantage, then we shall lose our golden opportunity; but

¹⁸Yoshida Shigeru, (Yoshida Kenichi, trans.), *The Yoshida Memoirs: The Story of Japan in Crisis* (Boston, MA: Houghton Mifflin Co., 1962), p. 204-10.

¹⁹John K. Fairbank, Edwin O. Reischauer, and Albert M. Craig, *East Asia: Traditions and Transformation - New Impressions* (Boston, MA: Houghton Mifflin, 1978), p. 824-30.

if our influence and strength are expressed in terms of essential liberalism we shall have the friendship and the cooperation of the Asiatic peoples far into the future."²⁰ With this vision, MacArthur and his staff aggressively implemented reform measures to create a free and democratic Japan; among the areas most aggressively pursued was labor.

Labor reform began with the elimination of the *zaibatsu*, organizations where government and industrial interests merged to wield economic power. In addition to the elimination of zaibatsu organizations SCAP placed several prewar industrialists on its purge list to ensure a successful reform, and to preclude the chance of power once again falling into their hands. The right to organize was the most radical change for Japan's labor institution. Union membership grew at a fantastic rate, from 400,000 in 1945 to 2.7 million by May 1946. While the right to organize was readily accepted by the Japanese, Japan's lack of experience in trade unions left a vacuum in these organizations, filled by communist leadership.

MacArthur's determination to allow unions to flourish troubled Yoshida as he represented all that was conservative in Japan, less its military past. Yoshida's goal as prime minister was to preserve the Japan that the militarists had lost, a goal made more difficult by SCAP's reform policies and subsequent infiltration of communist leaders in the labor ranks. To Yoshida, MacArthur's naivete was disturbing to the point that it seemed reforms were "revolution for revolution's sake."²¹

Among the leftists that Yoshida despised most was Tokuda Kyuichi, head of the Communist Party who was eager to use Japan's labor unions as a vehicle for communist revolution. As the economic situation became worse with government deficits, inflation, and food shortages, the radicalism and unrest in these newly formed labor unions grew, challenging Yoshida's position and the tolerance of US leadership.²²

By raising protests for more food, higher wages, and other demands during a time of economic despair, Tokuda hoped to conduct his revolution by rallying Japan's working class behind him and bringing the business of the nation to a halt. In light of these plans, he called for a nationwide walkout of all government union members (approximately 2,600,000) for February 1, 1947. It was not until nine-and-one-half hours before the scheduled walkout that MacArthur moved to prevent the strike. With

²⁰David Halberstam, *The Reckoning* (New York, NY: William Morrow and Co., Inc., 1986), p 113.

²¹*Ibid.*, p. 119.

²²Yoshida, p. 223-231.

the nation's food and gas supplies down to only three days, MacArthur decided to prohibit the use of "so deadly a social weapon in the present impoverished and emaciated condition of Japan." Forced to intervene in behalf of Japan's welfare, MacArthur's liberal attitudes toward labor suddenly adopted a more cautious eye toward communism.

In 1949, Japan with the help of SCAP began the "Red Purge;" going to the heart of Japan's far left movement, the Japanese arrested communist labor leaders and several thousand workers. As these leftist labor unions fell and Japan's domestic economic policies solidified with the *Economic Stabilization Plan* and the *Dodge Line*, a new more productive relationship formed between workers and Japanese management. Unlike American labor unions where workers have been organized by occupation or trade spanning several corporations, Japanese labor unions formed within companies. Under these circumstances, the union's welfare was intimately linked to the success of the company, not the entire industry, and therefore close cooperation between union and management formed with overall success of a particular company as their common goal.²³

Although the initial years of labor reform under SCAP began with significant turmoil, Japan's labor force reorganized between 1947 and 1950, and was prepared to seize the economic benefits of US special procurement orders realized by the Korean War. Labor's contribution to economic recovery was vital as Japan's economy was based on labor-intensive light industries and preparing to once again, shift into heavy industry production. As demand for Japanese goods increased, so did production rates bringing greater employment opportunities to the developing economy. It was during these years of increased productivity that lifetime employment became institutionalized by the Ministry of Commerce and Industry's (MCI) Industrial Rationalization Council. In addition to the relationship between workers and management realized in an intra-company union, the concept of lifetime employment contributed to a unique character in Japan's economy which improved productivity through efficiency.

5. Exports

As a result of two years operation under the Dodge Plan, Japan was prepared to meet the demands of US procurements in support of the Korean War. US demand during the Korean War years poured money into Japan's industries bringing greater productivity, nurturing production capacity toward a status capable of producing goods for export to other countries. Japanese light-industry exports grew and were

²³JEI, *JEI No. 24*, January 15, 1988, p. 1-3.

eventually sent to the US and West European markets as Japan's industries regained strength.

Compelled to relinquish its colonial possessions and the resources they provided, exports became a vital means of earning hard currencies to purchase scarce raw materials from foreign sources. Southeast Asia, subjugated by Co-prosperity policies of the 1930's and early 1940's for its abundant natural resources, was again looked upon as Japan's solution for raw materials.

United States initiatives made significant contributions to Japan-Southeast Asian economic relations; policies toward Southeast Asia incorporated concerns for Japan's economic recovery which formed a triangular relationship among the US, Japan, and Southeast Asia.²⁴ In July 1952, the United States Joint Chiefs of Staff established the following policy:

United States objectives with respect to Southeast Asia and United States objectives with respect to Japan would appear to be inseparably related. Moreover, the Joint Chiefs of Staff are of the opinion that Japan's security and Western orientation are of such importance to the United States position in the Pacific area that (1) in the implementation of NSC 125.1 and NSC 124.2 the United States must take into account Japan's dependence upon Southeast Asia for her economic well-being, and (2) the loss of Southeast Asia to the Western World would almost inevitably force Japan into an eventual accommodation with the Communist controlled area in Asia.²⁵

US protection of Southeast Asia and Washington's concern for Japan's economic "well-being," offered Tokyo a golden economic opportunity. Prime Minister Yoshida Shigeru's businessman's approach to international relations proved to be a complementary medium as Southeast Asia was still viewed as a region of abundant

²⁴Sudo Suet, "Nanshin, Superdomino, and the Fukuda Doctrine: Stages in Japan-Southeast Asia Relations," *Journal of Northeast Asian Studies*: 5 (Fall 1986) 35, p. 36.

²⁵Department of State, *Foreign Relations of the United States 1952-1954*, XIV, part 2 (Washington DC: Government Printing Office, 1985). p. 1290.

²⁶Sudo Suet, p. 36.

natural resources and lucrative markets for Japanese products.²⁶ As a result, Yoshida instituted "*economic diplomacy*" (*keizai gaiko*) in a November 1952 speech:

With respect to trade promotion, the government shall carry out *economic diplomacy* i.e. conclusion of commercial treaties, broaden and develop trade opportunities by increasing overseas merchant ships, strengthening export industries, and utilizing foreign currency reserves. In so doing, we will particularly develop economic linkages with Southeast Asian countries.²⁷

While economic diplomacy sought raw materials, particularly from Southeast Asia, it focussed on the more affluent markets of the US and West Europe for its light-industry exports. Although Japan's industries were oriented toward light products, technology from the West later allowed Japan to shift toward an economic strategy based on heavy and chemical industries.

6. Technology, Research and Development

Research and Development was assigned low priority during this period since most efforts were directed to achieve immediate economic returns. In spite of this low priority, the time from 1948 through 1952 were years that research and development gave birth to Japan's lucrative electronics industry.

While MacArthur and his occupation staff brainstormed Japan's economic recovery, a section of the Japanese Ministry of Commerce and Industry (members of the Electrical Basic Research Laboratory) studied technical papers in the Occupation Headquarters' library in Tokyo.²⁸ Their attentions were drawn to a July 12, 1948 *Time* magazine article inserted in the Science section entitled "Little Brain Cell." The article highlighted Bell Laboratories' revolutionary development in the electronics field: the transistor. The article concluded with a description of Bell Labs' demonstration and a prediction for the transistor's "practical" application:

Transistors are not in production yet, but Bell scientists, to show what their little brain cells can do, demonstrated a radio receiver with vacuum tubes replaced by Transistors. Though not very powerful, it worked fine. Probably the transistor's first practical assignment will be to amplify currents in telephone circuits, a job now done by vacuum tubes.²⁹

²⁷Yoshida Shigeru, *Kaiso Junen* vol. 4 (Tokyo Shincho Sha, 1958) p. 250, as found in Sudo Suetō, *Journal of Northeast Asian Studies* vol. 5, No. 3, Fall 86.

²⁸Sheridan Tatsuno, *The Technopolis Strategy: Japan, High Technology, and the Control of the Twenty-First Century* (New York, NY: Prentice Hall Press, 1986) p. 4.

²⁹"Little Brain Cell," *Time* 52: (July 12, 1948) 54.

In late 1948, the MCI team headed by Professor Watanabe Hiroshi of Tokyo University, formed a study group comprised of individuals from Japan's infant electronics industry: Kobayashi Masaji and Osafune Hiroe of NEC, Masami Tomono of Hitachi, Kobayashi Akio of Toshiba, and Yamasaki Jiro and Honda Namio of Tokyo University. Although the Bell transistor was constructed of germanium, a scarce resource in Japan, the electronics study group eventually developed a silicon transistor in 1950.³⁰

As with most research and development achievements, MCI's success had implications for future economic development. The significance of transistor research and development from 1948 to 1952 provided the necessary technology for Japan's electronics industry which later focussed on producing consumer items for export sales. US research and developments in this field established the basic technology and in later years transferred the technology for transistor production and integrated circuits to Japan's electronics industries.

C. SUMMARY 1945-1952

The security and economic factors of 1948 to 1952 Japan were shaped by relations with the United States. With US assistance in management and capital, Japan witnessed the transformation of its starving population from economic liability to vital resource for light-industry production. Japan's economic and political foundation was laid under the Yoshida Doctrine, and US security interests in Asia were responsible for their rapid formation. In the development of demand, capital, labor, export and technological issues which sought economic recovery, a security partnership was formed.

It was during these years that the Cold War developed, and as MacArthur's initial plan to form a Japanese democracy through liberal reforms took shape, Japanese society swung to the left under the influence of communist labor leaders. Communist leaders surfaced in labor ranks using Japan's poverty as a vehicle for social instability and the communist cause of revolution. It became apparent to Japanese and American leaders that a viable economy was essential to attain democracy, moreover it was perhaps the best defense against communist influence under Cold War conditions. With the help of George Kennan, William Draper, and Joseph Dodge, MacArthur's focus shifted from political reforms to economic stabilization, as recovery became the fundamental task embraced by both SCAP and Japanese officials.

³⁰Tatsuno, p. 5.

While Japan brought inflation under control and reorganized labor, the US injected capital into the recovering economy first to save the Japanese people from starvation, then to re-start the engines of Japan's industries. As a nation whose technology survived world war and accelerated with aggressive research and development, the US was a primary source of advanced technology for Japan's recovering economy. Although most of these technology transfers were through outright purchases or licensing agreements by the Japanese, the relationships formed under these conditions proved to be instrumental in obtaining more advanced technology in later years which contributed to the rapid economic growth rates of the late 1950's and sixties.

III. SECURITY AND ECONOMIC FACTORS 1952-1973

As the US occupation came to a close, Japan continued to pursue economic recovery as its primary national goal. Although recession followed the armistice agreement between United Nations forces and North Korea, Japan's economy regained momentum through economic restructuring. Structural adjustments to Japan's economy facilitated rapid economic growth; industrial sectors promising rapid growth were given government assistance and fiscal policies were adjusted to increase disposable income. Both government and private enterprise sought economic growth, and a cooperative, if not coordinated effort was made to achieve economic goals. From 1952 to 1973 the international community witnessed Japan's economy evolve from a developing country to industrial superstate.

By 1973 Japan was a thriving economic power about to experience the vulnerability of foreign resource dependence. The scope of Japan's economic and security concerns formed a broad spectrum as its economy became more dependent on foreign resources and markets. Security interests incorporated economic concerns for continuous flows of industrial supplies from foreign sources since Japan's prosperity was fundamentally based on stable overseas supplies of energy, food, minerals and technology. Although these concerns were expressed by diplomatic means, little else was done to protect or limit the vulnerabilities of Japan's dependence on foreign supplies.

A. SECURITY DEVELOPMENT

1. US-Japan Treaty Revision

The international climate upon restoration of Japan's sovereignty continued to be overshadowed by Cold War; the bi-polar world of communist versus free nations focussed on activities of superpower nations: the Soviet Union and United States. In light of these conditions and tensions on the Korean peninsula, the US pressured Japan to contribute more to its own security, ie. to increase the strength of its defense force.

In support of US desires to enhance defense capabilities, and receive continued military aid under the MST, Prime Minister Yoshida submitted the Defense Agency Establishment Bill and the Self Defense Force Bill to the Diet in 1954. Passed by the Diet, these Bills established the Ground, Maritime, and Air Self-Defense Forces

under the Defense Agency with responsibility to defend the peace and independence of Japan.³¹

By 1958 Japanese concern over US-Japan Security Treaty arrangements and rising US-Soviet tensions brought the need for realigned responsibilities. The 1952 Treaty allowed American use of bases in Japan for subsequent military actions in Asia. The Treaty also authorized the use of US troops to quell large scale internal riots and disturbances in Japan at the request of the Japanese government. Due to massive demonstrations by primarily Socialist Party opposition wanting to totally abolish the arrangement, the Treaty was rammed through a special late night session of the Diet by Prime Minister Kishi resulting in additional protests and his subsequent resignation.

The renegotiated Treaty of 1960 gave more favorable conditions to the Japanese. By the new treaty, follow-on military action in Asia from US bases in Japan and introduction of nuclear weapons into the country required prior consultation with the Japanese government. A major aspect of the renegotiated MST was Article 5, which stated:

Each party recognizes that an armed attack against either party in the territories under the administration of Japan would be dangerous to its own peace and safety and declares that it would act to meet the common danger in accordance with its constitutional provisions and processes.

In effect, the Treaty was no longer a mutual arrangement. Although an attack against either party in Japan was considered an attack against both, an attack against the US outside of territorial Japan would not necessarily constitute an attack against Japan.

2. Japan's Return to International Affairs

Although Japan was influenced by the effects of Cold War, return of sovereignty and trade opportunities urged Japan to become better integrated with the international community. Japan opted to normalize relations with the Soviet Union rather than focus on differences presented by Soviet occupation of the Southern Kurile Islands; normalization between the two countries was settled in October 1956 without a formal peace treaty leaving the Northern Territories issue for later debate. In the same year Japan was admitted to the United Nations as a full member, a fundamental goal toward Japan's concept of peaceful international relations.

³¹Hane, p. 358.

Measures to return to an international position included efforts to reconcile the past, particularly with its Southeast Asian neighbors. These countries became increasingly important to Japan since they supplied the raw materials essential to economic recovery. From 1948 to 1952, Japanese imports from its Asian neighbors increased from 16.6 percent to 31 percent, comprised mainly of materials such as rubber from Indonesia and Malaysia, lumber, hemp and iron ore from the Philippines, and tin, also from Malaysia.³² With encouragement from the United States, these countries were urged to minimize reparation demands with Japan. The first agreement was reached with Burma in 1954 and was followed in the next few years by similar agreements with Thailand, the Philippines, Indonesia and South Vietnam.

Efforts to normalize relations between Japan and the Republic of Korea (ROK) were hindered by mutual animosities. Syngmun Rhee, convinced that Japan was still Korea's principle enemy, served to obstruct progress in negotiations, while Yoshida's personal dislike for the Korean leader made progress for the two nations impossible.

Since the nation had not been at war with Japan, the Republic of Korea could not be treated as one of the belligerent powers and therefore not represented at the San Francisco Peace Conference in September 1951. Syngmun Rhee however, was eager to negotiate with Japan in hopes of securing several objectives. Among the most significant were:

1. Securing the rights of 600,000 Koreans who remained in Japan.
2. Preventing Japan from developing armaments that would threaten the security of the Korean Peninsula.
3. Secure a territorial agreement for commercial fishing purposes where both nations would observe a boundary line drawn midway between the waters of Korea and Japan. The boundary was initially established by SCAP in October 1945 and was then called the MacArthur Line.
4. The most urgent item on Syngmun Rhee's agenda with Japan however, was a financial claim against Japan for its occupation of Korea.

Six weeks after the signing of the San Francisco Treaty, ROK and Japanese officials met on October 20, 1951 to begin negotiations toward normalized relations. Since Japan was still under SCAP control, US officials urged the ROK to not press for reparations, knowing that if such an arrangement was reached, US funds would undoubtedly be required for Japanese reparations. Japanese interests in negotiating

³²Office of the Prime Minister, Bureau of Statistics, *Japanese Statistical Yearbook 1955*.

with the ROK government centered on repatriation of Koreans in Japan while refusing into acknowledge remorse for its occupation of the Korean Peninsula. Korean demands for an apology often provoked Japanese disbelief for Korean ungreatfulness. In the eyes of these officials, Japanese occupation of the Korean Penninsula significantly improved a region where its inhabitants were incapable of development and prosperity. Moreover, they believed Japanese guidance protected Korea, which would otherwise have been lost to Western influences eager to take advantage of a helpless region and people. Cruelty imposed during the occupation was rarely a consideration or reality from the Japanese perspective.

Mutually antagonistic sentiments continued throughout negotiations, and during the third conference in October 1953, tempers raged as the chief Japanese negotiator, Kubota Kanichiro, issued statements in defense of Japan's previous rule over the Korean people. Kubota told Korean negotiators that the independence of ROK before the signing of a peace treaty was not normal. Additionally, he criticized the Allied powers for disposing Japanese property in Korea before the treaty was signed, and therefore, Japan had the right to claim property in Korea. But perhaps the most inflammatory statement made by Kubota was that the thirty-six year rule by the Japanese in Korea was not altogether bad, and in fact, it was helped the Korean people by bringing advances in such areas as education, health, transportation, and agriculture. Infuriated, the Korean delegation walked out of the negotiations, not to meet again for four years, when the Japanese government officially withdrew Kubota's statement (December 31, 1957).

Even after this incident, damaging statements by Japanese officials were not uncommon. Statements such as the following, continued to slow the progress of negotiations:

To the ROK, normalization of ROK-Japan relations is a matter of life or death. Therefore, the ROK is primarily responsible for bringing about normalization of relations. (Ohira Masayoshi, Foreign Minister, 1962.)

Ultimately, the emphasis of Japanese diplomacy should be given to close cooperation with America. In order to do this, the ROK and Formosa will have to be closely related. If feasible, it would be nice to form the United States of Japan with ROK and Formosa. (Ono Banboku, Vice-President of the Liberal Democratic Party, 1958.)

Japan should penetrate into Korea, following the example of Ito Hirobumi (the Japanese Resident General in Korea who masterminded the annexation of Korea). (Ikeda Hayato, Prime Minister, 1962.)

Managing Formosa, annexing Korea, and dreaming of cooperation and peace among the five races in Manchuria--if this was Japanese imperialism, it was an honorable imperialism. (Shiina Etsusaburo, Foreign Minister, 1962.)

It would have been better had Japan ruled Korea twenty more years. Even though it was a colony, Japan did good things for Korea. (Takasuki Shinichi, chief delegate to the seventh ROK-Japan conference, 1965.)³³

During Syngmun Rhee's leadership of the ROK, it was animosities such as these and his strong sense of nationalistic hate for the Japanese formed since 1905, that plagued the relationship between the two nations.

In the absence of Japan-ROK progress during negotiations, several decisions were made by both governments which exacerbated tensions. On January 18, 1952, Rhee unilaterally proclaimed a boundary which extended 60 miles from Korea's shores and established a policy to capture Japanese vessels violating the proclamation. Viewed by the Japanese as an act of war, it served only to distance the two Asian nations. In March 1959, the Japanese cabinet under Prime Minister Kishi allowed voluntary repatriation of Korean residents to North Korea. Still technically at war with this northern neighbor, Syngmun Rhee viewed the decision as collusion with the enemy. It was not until Rhee finally left office in April 1960 that Japan-ROK relations had an opportunity to reverse its course, although progress toward normalization continued to be extremely slow.

Korea's subsequent leaders, Chang Myun and Park Chung-Hee, had both worked under the Japanese, the former as a Catholic school principal and latter as a graduate of the Manchukuo and Japanese military academies and a first lieutenant in the Japanese army.³⁴ The US also played a role in bringing the two nations closer together as the American of economic aid to Korea shrank and the United States was increasingly preoccupied with growing tensions in Indochina during the early 1960.

Cognizant of their nation's need for economic assistance, Rhee's successors looked to Japan more as a model than an enemy. Although US economic aid reached a high of \$368.8 million in 1957, US aid to the ROK dropped to \$219 million in 1959, regaining a little in 1960 to \$245.2 million. As a result of deficit trade accounts and slower growth, the US underwent fiscal austerity to stem growing budget deficits and

³³Kwan Bong Kim, *The Korea-Japan treaty Crisis and the Instability of the Korean Political System* (New York, NY: Praeger Publishers, 1971), 48-9.

³⁴Chong-Sik Lee, *Japan and Korea: The Political Dimension* (Stanford, CA: Hoover Institute Press, 1985), p. 45.

called on its allies in Europe and Japan to help contribute to developing nations. Japan's economic recovery was apparent to Korea and the potential of additional aid, even if from Japan, was attractive to Korean leaders.

Economic necessities alone did not drive America's interest to see the ROK and Japan regain normal relations. Rising communist influences and tensions in Southeast Asia presented an obvious threat to the US allies still consumed with historical differences. John M. Allison, former assistant secretary of state for Far Eastern affairs and ambassador to Tokyo between 1953 and 1957 articulated US concerns as he wrote:

...we must face up to the fact that Korea is a small nation surrounded by three powerful neighbors, only one of which, Japan, was friendly to the free world, and it is therefore essential that Korea realize that its safety and future progress, as well as that of the West, depends upon the renewal of friendly relations with Japan, and this can only come about through compromise and cooperation on both sides.³⁵

America's security interests in Korea are in part, hinged to its most important ally in Asia: Japan. An unstable Republic of Korea, weak and incapable of defending itself from the North, would be detrimental to Japan's security posture, forcing greater defense outlays with adverse effects on Japan's economy.³⁶

Although the benefits of a speedy Korea-Japan normalization process were apparent to US officials, progress toward this goal was hampered by domestic political difficulties in both countries. In 1960, Kishi's treatment of the renegotiated MST resulted in his resignation, causing his successor, Ikeda Hayato, to approach the issue of normalization with caution not to increase political upheaval. A year later, rising domestic political pressure confronted Chang Myun, resulting in a successful coup led by Park Chung-Hee. Opposition parties in both countries maintained pressure on their incumbent leaders in several issues, making progress toward normalization difficult.

Continued encouragement by the US helped bring the two American allies together and as domestic political turbulence somewhat subsided (although never completely removed), the leaders were better able to cooperate and compromise during their negotiations. The two countries made their first major step toward normalization

³⁵John M. Allison, *Ambassador From the Prairie or Allison Wonderland* (New York, NY: 1973), p. 259 as found in Chong-sik Lee, p. 44.

³⁶James W. Morley, *Japan and Korea: America's Allies in the Pacific* (New York, NY: Walker and Co., 1965), p. 52-66. These facts were well appreciated by Japanese leaders.

after reaching an agreement on the Treaty on Basic Relations. It was during the process of negotiating this Treaty that Korean desires for an official Japanese apology were finally met. On February 17, 1965, as Shiina Etsusaburo arrived in Seoul to initial a tentative draft of the Treaty on Basic Relations, he uttered the first official words toward an apology of Japan's past as he said: "I . . . really regret that an unfortunate period existed in the long history of the two nations, and deeply reflect on such a past."³⁷ Japan, according to Article III of the Treaty, recognized the Republic of Korea as the "only lawful government in Korea as specified in the Resolution 195 (III) of the UN General Assembly." While the ROK government hoped to be the only legitimate and sovereign government of all Korea, the second part of this Article included a proviso which, in effect, limited recognition of the ROK as the government of South Korea. Although this understanding left room for later tensions between Japan and the ROK, the cooperative, compromising spirit of these negotiations enabled the two nations to make gains on a grander scale. On April 3, 1965, Korean negotiators, headed by Foreign Minister Yi Tong-won, and the Japanese, headed by Foreign Minister Shiina Etsusaburo, reached agreements satisfying both governments which eventually led to normalized relations between the two governments.

Negotiators agreed:

1. The Rhee Line was to be replaced by a twelve-mile fishing zone.
2. To satisfy property claims by Korea, Japan was to provide \$45 million over a ten year period. In addition to a \$300 million grant of Japanese products and labor toward Korean economic development, also over a ten year period, Japan agreed to provide \$200 million in credit toward Official Development Assistance loans and \$300 million in credit toward commercial loans.
3. Japan agreed to return several Korean books and art objects of cultural and historical value.
4. Koreans residing in Japan prior to August 1945 and their descendents were to be granted permanent resident status.

On June 22 the Treaty on Basic Relations and four agreements were signed by the two countries and active bilateral economic relations soon followed. In spite of the fact these two nations were able to put their historical differences aside, they were not forgotten and a cautious friendship developed between the two Asian allies of the United States. As during the fourteen years prior to formal normalization, economic factors were significant in Japan-Korean relations after 1965. In the wake of

³⁷Kim, p. 50.

normalization, with the help of Japanese assets, Korea's economy rocketed bringing economic prosperity to the nation (see Figure 3.1).

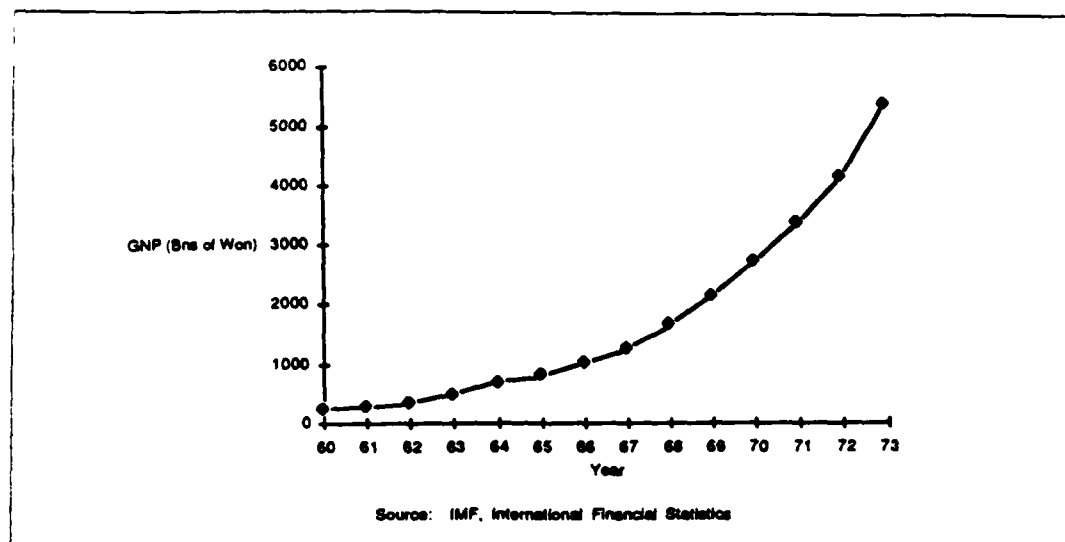


Figure 3.1 Republic of Korea-GNP: 1960-1973.

3. Sino - Japanese Rapprochement

On March 5, 1953, Joseph Stalin died bringing to an end the leadership which brought the Soviet Union world power and the apparent basis of close relations with the People's Republic of China known as the Sino-Soviet honeymoon. In his place, a cantankerous and irascible Nikita Khrushchev became Party Chairman, denouncing the former Soviet leader's practices and policies. The Sino-Soviet split which began with Khrushchev's de-Stalinization speech in 1956, served to facilitate Japan's normalization with the People's Republic of China (PRC) in later years. Although Japan's formal ties were with the Republic of China (ROC) government on Taiwan (which served Japan's economic interests well), political and economic merits of normalization with the PRC were considerable.

At the San Francisco Peace Treaty of 1951, Japan had hoped to maintain an ambiguous position regarding the two-China issue. John Foster Dulles, architect of the Treaty, became concerned that Japan's ambiguity *vis a vis* the China issue would preclude passage of the peace treaty in Congress, and therefore, pressured Prime Minister Yoshida to normalize with the ROC government. The ROC government in

return, acknowledged the peace treaty and declined reparation payments from Tokyo. Although considerable trade developed between Japan and the ROC, this relationship made it difficult if not impossible for the Japanese government to conduct its economic diplomacy with the PRC government. PRC rhetoric of the US-Japan Security Treaty and development of Japan's Self-Defense Forces, made relations even more difficult as it condemned Japan as a re-emerging military threat to Asia.

In spite of this rhetoric, cyclical economic relations took place as the PRC entered its economically unstable periods. Frustrated with the performance of a Soviet styled planned economy, China's leaders embarked on a policy to attain economic parity with the advanced nations of the world. During the second session of the Eighth Party Congress in May 1958, China's leaders announced that the *Great Leap Forward* will force the nation to press "ahead consistently to achieve greater, faster, better and more economic results." While these goals were necessary for China's well-being, the plans to affect them were unrealistic as priority rested in the agricultural sectors and national leaders entrusted peasant farmers with execution of the nation's goals. The Great Leap Forward was a failure, however China was to experience yet another national movement only to end in chaos: *The Great Proletarian Cultural Revolution* beginning in 1966.

The Cultural Revolution, again led by Mao Zedong, his wife Jiang Qing, Lin Biao, and Chen Boda, was in effect a call for creative study and application of Mao's thought. The movement was also a purge of the existing bureaucracy on a grand scale with hopes of returning control to a more popularly-based system, led personally by Mao. Although politically and culturally motivated, turbulence of such magnitude naturally had extreme negative effects on the nation's economy which Japanese businesses approached with caution and often avoided completely.

Japanese businesses, through commercial trade, prospered between these periods of political upheaval and by 1970, the momentum for closer PRC-Japan was in full swing as private business and political groups drew pressure on the Japanese government for normalization with the PRC. The Dietmen's League for Promoting Restoration of Japan-China Diplomatic Relations, comprised of business leaders and political groups, was instrumental in challenging Prime Minister Sato's anti-PRC position and initiated a change in direction for Japan's foreign policy *vis a vis* the PRC. Even before Nixon's July 1971 announcement that Special Assistant Henry Kissinger made a secret visit to Beijing, the domestic momentum in Japan was overwhelmingly in

support of normalized relations with the PRC. The Nixon shock made this pressure so pervasive that no responsible Japanese leader could afford to ignore it.³⁸ In September 1972, a Joint Statement signed by Prime Minister Tanaka Kakuei and Zhou Enlai established diplomatic relations between the PRC and Japan giving promise to greater economic, political and cultural exchange.

B. ECONOMIC FACTORS

Integration into international affairs and economic growth were twin interests in Japan from 1952 to 1973. The incipient years of this period were characterized by continued economic recovery which temporarily lapsed with the decline of US military procurements after the Korean War. Japan's re-emergence to the international economy was that of a developing country seeking economic assistance and cooperation. Through greater economic cooperation, Japan hoped trade would stimulate its domestic production and bring continued growth.

In the mid-1950's Japan restructured its economic system to achieve greater growth and address the problem of growing current account deficits. The new economic strategy focussed on the demand of affluent-industrialized countries and Japan's domestic demand. The restructuring was based on the premise that as individual incomes rise, their demand for light-industry goods (such as food and textiles) changes very little, however demand for heavy-industry goods (products such as appliances and automobiles) increases proportionally.³⁹ Economic planners concluded that as Japanese current account deficits grew, the government could curtail domestic demand and accelerate exports. According to this strategy, industrial production would continue throughout all phases of business cycles. To achieve continued growth based on income elasticity of demands, Japan restructured its economy to one based on heavy industries, a change contrary to its comparative advantage in low-cost and abundant labor.

The Comprehensive Policy for Economic Expansion (*Keizai Kakudai Sogo Seisaku Yogo*) and Outline of the New International Trade and Industry Policy (*Shin Tsusho Sangyo Seisaku Taiko*) adopted by the cabinet in September and October 1954, established Japan's new economic focus. Designed by Aichi Kiichi, Minister of International Trade and Industry (MITI) during the Yoshida government, and

³⁸Chae-Jin Lee, *China and Japan: New Economic Diplomacy* (Stanford, CA: Hoover Institute Press, 1984), p. 8-9.

³⁹Johnson, p. 228.

implemented by his successor Ishibashi Tanzan of the Hatoyama cabinet, the policy aimed to achieve economic growth by the following means:

1. Increase export volume by reducing costs.
2. Enlarging production to affect economies of scale, thereby reducing production costs and prices for export goods.
3. Utilize domestic demand to stimulate the economy and enlarge industrial production.

The new economic plan included efforts to restore economic ties with Southeast Asia for natural resources, tax reform to stimulate domestic demand, and programs to facilitate import substitution to reduce current account deficits.

With increased industrialization and economic growth, Japan enhanced its position in international economic organizations and world affairs. In 1953 Japan received its first International Monetary Fund (IMF) loan as a developing country. As economic growth rose at a 10 percent average, the nature of Japan's participation took on a new form; in 1961 Japan became member of the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD), and thereby became an official contributor to developing countries. Five years later in 1966, Japan became a member of the OECD and the Asian Development Bank (ADB).

Japan's economic successes were evident in its standard of living, accumulation of capital, industrial production, volume of trade, sophistication in technology and other economic aspects characterized in the aggregate statistic of Gross National Product (GNP) growth. In addition to these achievements, the 1964 Olympics in Tokyo proved to be a watershed event in terms of the Japanese self-image. Because of their smooth and successful execution of that event, the Japanese convinced themselves that Japan was indeed an advanced nation. Moreover, "to the self-conscious surprise of the Japanese, foreign visitors seemed impressed by modern Japan."⁴⁰

Economic success through industrialization and international commerce brought a new spectrum of security challenges to a nation rich in labor and managerial skills, however poor in mineral resources. Japan's growing industrial-based economy became more dependent on foreign energy, food, and raw materials; continuous flows of these commodities were vital to Japan's national interests which did not become fully apparent until the Arab oil embargo of late 1973.

⁴⁰Leonard H. Lynn, "Japanese Technology at a Turning Point," *Current History* 84 (December 1985): 506, p. 432.

The following sections of this chapter show the rapidly expanding nature of Japan's domestic demand, capital formation and flows, exports, and technology. The effects of this economic expansion will be seen in economic growth, primarily GNP and industry; Japan's contribution to developing countries through Official Development Assistance (ODA) and private capital flows; dependence on foreign energy sources; and dependence on foreign sources for food.

1. Demand

a. Domestic Demand in Support of Growth

Economic restructuring to heavy industries produced consumer goods in a country weary of hardships imposed by war and economic recovery. Industries produced consumer goods that were common in practically every household. Japan's industrial base of the early 1960's was evident in Japanese homes as practically every household demanded the "three sacred treasures": televisions, washing machines, and refrigerators. As economic development progressed, the three sacred treasures became the "three C's" of the late 1960's: cars, coolers, and color televisions.⁴¹

Domestic demand not only elevated the standard of living through more sophisticated products, it served to expand heavy industry sectors and contribute to overall growth. With greater domestic demand, industries expanded to facilitate economies of scale and produce goods at lower costs. Although Japan's exports were vital to the economy, it was Japan's domestic demand from 1960 through 1973 that facilitated economic growth. Figure 3.2 indicates this as it compares the growth rates of domestic demand and exports to GNP: while domestic demand's growth paralleled that of GNP, exports grew at an unstable rate contributing less to GNP growth in 1963, 1967, and 1972.

b. Demand for Energy

As Japan's economy became more heavy and chemical-industry oriented through the 1960's and 1970's, the nation became more dependent on foreign energy supplies. Annual crude petroleum imports grew from 31,116 million kiloliters in 1960 to 83,280 million kiloliters in 1965, an average annual increase of over 33 percent. By the close of fiscal year 1973, crude oil imports grew to 286,670 kilo liters. While both economic growth and overall energy requirements in 1973 increased six times from the 1960 rate, crude petroleum imports increased over eight times during the same period.

⁴¹Johnson, p. 236.

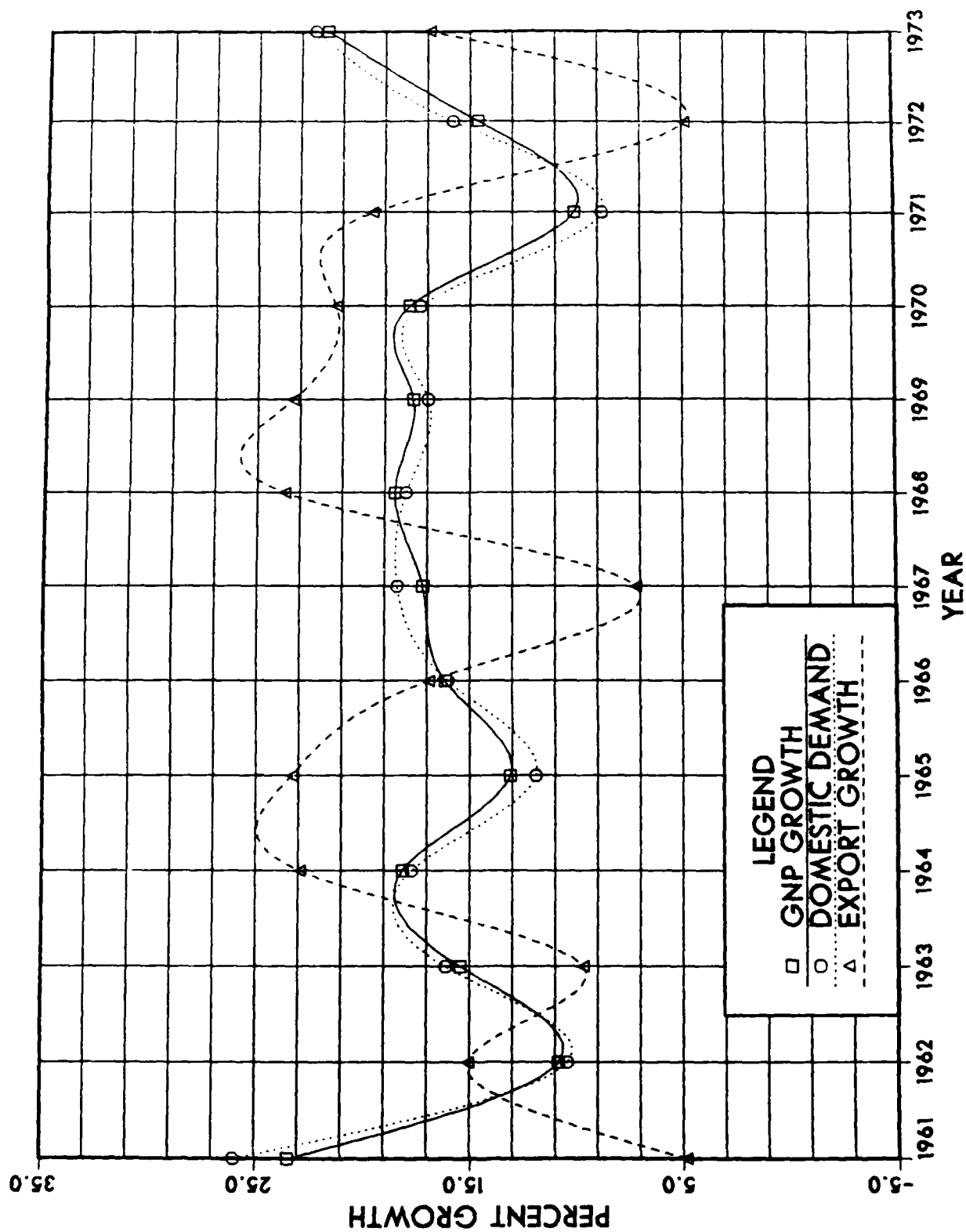


Figure 3.2 Economic Growth Rates: 1961-1973.

By 1973 Japan's energy consumption had increased over 600 percent from 1952. Primary energy,⁴² or the sum of several sources of energy producing means to include hydroelectric power, coal, petroleum and natural gas (excluding minor fuels such as peat, shale, and fuelwood) had evolved to meet Japan's energy demands. In 1953, domestic energy assets contributed much to Japan's coal-fueled economy as domestic coal production comprised over 46 percent of the total primary energy supply, while petroleum products contributed only 17 percent and only 23 percent of Japan's energy needs were from foreign sources (see Table 2). By 1973, primary energy composition was drastically changed as domestic coal supplied only 3.8 percent of primary energy supplies, petroleum products and crude contributed 77.6 percent. As a result, 89.9 percent of Japan's primary energy supplies were from foreign sources. Japan's petroleum based industry now depended heavily on the Middle East as 80 percent of all imported crude came from the Middle East, 43 percent from Arab oil-exporting countries and 37 percent from Iran alone.⁴³ Although the economic policies implemented in 1954 under the Yoshida government had great success in expanding industrial production, exports, and capital flows, Japan's vulnerability in energy dependence which evolved under these policies became apparent as the petroleum supplies which fueled this economic miracle were drastically reduced by the Arab-oil embargo of November 1973.

c. Demands for Food

Japan's prosperity and rising income levels had an effect on the nation's demand for food as well as energy. Although quantitative increases are noted in individual diet, qualitative changes in food demand were even more significant to Japan's economic outlook as consumption of more nutritious foodstuffs required more sophisticated agricultural assets. The nature of Japan's food consumption changed with its growing prosperity and population. As Japan evolved from a developing to industrial nation, caloric intake and diet composition became more diversified. Caloric intake increased while levels of proteins and fats assumed greater portions of the total diet (see Table 3).⁴⁴ The Japanese diet included larger quantities of domestically produced meat which raised the demand of imported feed grains. Rice, the national

⁴²CIA, *Handbook of Economic Statistics - 1986* (Washington, DC: Government Printing Office, September 1986), p. 130.

⁴³Okita Saburo, "Natural Resource Dependency and Japanese Foreign Policy," *Foreign Affairs* 52 (July 1974): 4, p. 714.

⁴⁴*Ibid*, p. 716.

TABLE 2
DISTRIBUTION OF JAPAN'S PRIMARY ENERGY SUPPLY IN PERCENT

Year	Hydro Power	Nuclear Power	Coal Domestic	Foreign	Petroleum Total	Domestic	Foreign	Total	Import	Domestic
1953	19.7	-	46.8	6.0	52.8	0.6	17.1	17.7	23.1	76.9
1954	20.9	-	46.3	4.6	50.9	0.6	18.0	18.6	22.6	77.4
1955	21.2	-	44.8	4.4	49.2	0.6	19.6	20.2	24.0	76.0
1956	20.0	-	44.7	5.0	49.7	0.5	21.4	21.9	26.4	73.6
1957	19.0	-	42.7	6.5	49.2	0.5	23.6	24.1	30.1	69.9
1958	21.2	-	41.1	4.9	46.0	0.6	24.9	25.5	29.8	70.2
1959	19.0	-	36.5	5.5	42.0	0.6	32.1	32.7	37.6	62.4
1960	15.3	-	34.4	7.1	41.5	0.6	37.1	37.7	44.2	55.8
1961	15.4	-	31.3	8.6	39.9	0.8	39.2	39.9	47.9	52.1
1962	13.4	-	28.7	7.3	36.0	0.8	45.3	46.6	52.6	47.7
1963	13.0	-	24.0	7.0	31.0	0.6	51.2	51.8	58.2	41.8
1964	11.6	-	21.8	7.4	29.2	0.5	55.2	55.7	62.6	37.4
1965	11.3	neg.	19.1	8.2	27.3	0.4	58.0	58.4	66.2	33.8
1966	10.7	0.1	17.4	8.8	26.2	0.4	60.0	60.4	68.7	31.3
1967	8.3	0.1	14.4	10.2	24.6	0.4	64.2	64.6	74.5	25.5
1968	7.8	0.1	12.4	11.2	23.6	0.4	66.1	66.5	77.4	22.6
1969	7.0	0.1	10.5	12.3	22.8	0.3	68.3	68.6	80.4	19.6
1970	6.3	0.4	8.1	12.6	20.7	0.3	70.5	70.8	83.5	16.5
1971	6.7	0.6	6.3	11.2	17.5	0.2	73.3	73.5	84.9	15.1
1972	6.3	0.7	5.3	11.3	16.6	0.2	74.7	74.9	86.4	13.6
1973	4.6	0.6	3.8	11.7	15.5	0.2	77.4	77.6	89.9	10.1

staple food, reached self-sufficiency due to government subsidies of rice production while the Japanese markets for meat were protected from foreign suppliers. As the demand for higher quality diets increased, feed grain imports of maize and sorghum grew proportionally.

The limitations of Japan's topography and dietary improvements compelled Japan to increase its foreign dependence on agricultural commodities. Total import volumes of major agricultural commodities, wheat, soybeans, maize and sorghum amounted to 18.1 million tons in 1973. Dependence on these commodities rested primarily with the US; the American share of Japanese imports was 67 percent for wheat, 88 percent for soybeans, 92 percent for maize and 75 percent for sorghum.⁴⁵

As Japan became more prosperous, demand for foreign raw materials and several agricultural products increased. Although prosperity improved the standard of living, Japan's dependence on overseas sources also grew in variety and quantity.

TABLE 3
JAPAN'S FOOD CONSUMPTION - PER CAPITA FOOD INTAKE PER DAY

	Fiscal Year				
	1955	1960	1965	1970	1972
Calories	2,217	2,290	2,408	2,471	2,516
Protein (grams)	65.7	69.5	73.7	76.9	78.2
Fat (grams)	22.2	29.1	40.2	51.9	56.5

d. Demand as a Factor in Japan's Security Affairs

During the years that followed conclusion of the US-Japan Mutual Security Treaty, Japan's national objectives focussed on economic growth as outlined in its *Comprehensive Policy for Economic Expansion* and the *New International Trade and Industry Policy* of 1954. Still too poor and underdeveloped to provide for its own

⁴⁵*Ibid*, p. 717.

defense, security issues, in the minds of most Japanese, were the responsibility of the United States.

With national efforts focussed on economic growth, Japan viewed the Cold War environment and many security issues as obstructions and sometimes nuisances to its national goals. The bi-polar world formed by the nuclear superpowers seemed too confining to a nation eager to expand international relations and trade. Although the MST linked Japan with the Western half of this bi-polar split, Japan, with its sense of economic diplomacy hoped to satisfy its domestic demands for natural minerals and petroleum supplies from the most economic suppliers.

This was especially evident in relations with the Soviet Union as many Japanese viewed the communist nation as a potential supplier for its resource needs. In spite of differences over the northern territories, absence of a peace treaty, and the prevailing Cold War environment, Japanese interest in Soviet resources overruled American cautions of dealing with the adversary nation as Japanese and Soviet officials initiated negotiations for trade. Throughout the sixties and seventies, most Japanese viewed the Soviet Union in a more favorable light than the United States. Afterall, the Soviet Union was also an Asian nation heavily endowed with natural resources; had advanced technology demonstrated by sending the first rocket into space; and, perhaps most important, a vast population with export market potential. Although few agreements were reached between the Soviets and Japan, these negotiations illustrate Japan's attitudes toward security issues prior to 1973 and the willingness to exercise economic relations in spite of political and ideological differences potentially detrimental to security matters.

The shift to heavy and chemical industries facilitated by increasing domestic demand accelerated economic growth and its economic integration in global affairs. As the economy continued to accelerate, international relations expanded to ensure a constant supply of resources and to seek additional export markets. Southeast Asia was an integral aspect of Japan's economy for several natural resources such as rubber, tin, palm oil, fruits and forestry products. The Arab states in the Middle East had an increasing role in Japan's economy as crude petroleum demands not only increased in volume, but also formed a greater portion of primary energy supplies. Although Japan relied heavily on the US for several products, particularly agriculture, dependence on its security partner formed little cause for concern until the Nixon "soybean shock" which, as its name indicates, caught most Japanese by surprise.

Demand for foreign commodities from 1952 to 1973 was a manifestation of Japan's rapid growth and industrialization. While relations with Southeast Asian nations were often strained due to lingering suspicions from the Pacific War and complaints for greater economic assistance, economic demands formed a symbiotic relationship among these Asian neighbors. Although these relations can be best characterized as ambivalent in political terms, Japan's relations with Southeast Asian countries experienced relatively uninterrupted flows of vital natural resources. As Southeast Asia provided Japan with supplies for its growing economy, the Soviet Union with its vast quantities of untapped natural resources and close proximity to Japan was a potential supplier of energy and minerals that never fully came to fruition.

(1) *The Soviet Union.* Despite Japan's policy of nurturing economic relations through economic diplomacy, minimal advances in Tokyo-Moscow relations were made in exercising comparative advantages of Soviet raw materials and Japanese industry. The Soviet Union had been supplying oil to Japan since 1958, however little progress was made on Soviet desires for Japanese assistance in the development of Eastern Siberia. Initial efforts to expand energy sources into the Soviet Union were led by Japanese businesses in 1962, however US Cold War sensitivities were easily offended which compelled Tokyo to block business hopes of joint development plans. Proof of this came in December, 1962, when the Idemitsu Industrial Company, which was importing approximately 30 percent of its oil from the USSR, was suddenly notified by the US Department of Defense that procurement of jet fuel from the firm would be discontinued because the oil was red.⁴⁶

Business frustrations *vis a vis* Cold War political obstructions were echoed by Takasaki Tatsunosuke, Chairman of Toyo Can-Manufacturing Company and former minister of MITI:

As long as the Cold War continues, the US will not welcome Japan establishing close relations with either the USSR or the PRC. The US does not have to promote trade with these countries because it can meet all its demands on its own. Japan, however, cannot survive without trade...It is therefore necessary for Japan to explain its stand fully to the US and gain their understanding for establishing trade relations with these two Communist countries.⁴⁷

⁴⁶Wythe E. Braden, "Anatomy of Failure: Japan-USSR Negotiations of Siberian Oil Development," *The Fletcher Forum* 5 (Winter 1981): 1, p. 77.

⁴⁷Quoted from a dialogue between Takasaki Tatsunosuke and Kitamura Tokutaro, President of the Japan-Soviet-East Europe Trade Association in "No Need to Dread Trade with the USSR and China," *Jitsugyo no Nippon* 1 February 1962, as

Japanese interests for economic cooperation with the Soviets re-emerged in the mid-1960's as Japan suffered an economic slow-down and sought new export markets. The changing international climate evident in the widening Sino-Soviet split offered Japan more freedom in international commerce. Although both China and the Soviet Union were potential export markets, the political instability and economic turmoil of the Cultural Revolution in China made the Soviet Union a more attractive market in the mid-1960's. Additionally, Moscow's desires to develop the virtually untapped resources in Siberia served to encourage Japanese investments.

As the international climate changed with growing Sino-Soviet differences, Japanese businesses made progress in negotiations with the Soviets. In September 1965, the Japan-Soviet Joint Economic Cooperation Committee (JSJECC) was established with the help of Keidanren and the Nihon Shoko Kaigasho (Japan Chamber of Commerce). The JSJECC institutionalize annual meetings in pursuit of joint Siberian development, the first of which was held at Tokyo in 1966.

From 1966 to 1973, several projects were proposed to excavate energy resources from Siberia, however little progress was made toward joint development. Among the proposed joint development projects were: the Tyumen to Nakhodka oil pipeline construction, expansion of Nakhodka and other Siberian seaports, mining of Udokan copper deposits, Siberian timber development along the Amur River, and development of Sakhalin natural gas and coal excavation in Yakutsk. Of the proposed projects, only Siberian timber development was realized as a joint Japan-Soviet project. The other proposals failed as disagreements formed in:

1. Share of capital to be provided by Japan
2. Terms of deferred payment to be made by the Soviets
3. Insufficient quantities of mineral resources offered by the Soviets as a return on Japanese investments
4. Japanese government's desire to re-open negotiations on the disputed Northern Territories issue

Japan's demand for energy and mineral resources did not play a significant role in improving relations with the Soviet Union. Although Japan was a welcomed partner in joint Siberian development, the differences listed above overwhelmed Japanese and Soviet negotiators resulting in little progress and much frustration.

found in Braden, p. 77.

In the wake of Okinawa's return to Japanese sovereignty, the Soviet occupied northern territories became a growing emotional issue for the Japanese. Domestic concerns over the Soviet occupation of Shikotan, Kunashiri, Etorofu, and the Habumais surfaced above Siberian joint development in spite of Japan's doctrine of economic diplomacy. In a politically unpopular decision during a meeting with Secretary Brezhnev in January 1973, Prime Minister Tanaka conceded that the northern territory issue was separate from the economic concerns of East Siberian joint development. Tanaka overruled the standing Liberal Democratic Party position demanding a *quid pro quo* arrangement: return of the northern territories for Japanese cooperation in joint Siberian development. But even Tanaka's dramatic break from the LDP position failed to reach an agreement with the Soviets. After Tanaka's statement, Soviet negotiators altered their 1972 proposal of supplying 125 million tons of Tyumen oil by 1975 and 130 to 250 million tons by 1980, in return for \$1 billion of Japanese credits. The revised position offered an annual supply of 25 million tons, while arguing more Japanese credits were necessary due to cost increases manifested by inflation and exchange rate fluctuations.

In March 1974, the JSJECC Directors meeting convened in Moscow where Soviet representatives estimated the new cost of Siberian development to be approximately \$5 billion. Discussions included the possibility of US participation in light of rising costs and a US Trade Bill proposed by the Nixon administration which extended most favored nation status to the Soviet Union. Although the Bill and extension of US credits were later blocked by Congress, Soviet initiatives made Japanese and US consideration of the Tyumen oil project a moot concern. On the last day of the Moscow meeting, to the surprise of Japanese directors, Kosygin announced cancellation of the pipeline project and the new Soviet plan to build the Baikal-Amur Mainline as Siberia's multi-purpose transport system and new center piece for Siberian development.

Japan's attempts to participate in Siberian development hoped to diversify foreign energy sources and nurture an export market in the Soviet Union. Neither of these goals came to fruition. Relations between the Soviet Union and Japan remained cool and by November 1973, Japan's dependence on the Middle East oil supplies reached its peak.

(2) *Foreign Oil Suppliers in the Middle East.* The relationships among domestic demand, capital formation, exports and foreign energy imports were key

ingredients to Japan's rapid economic growth. Each factor represented a fundamental aspect of Japan's economic miracle.

In November 1973, the Arab oil-producing nations of the Middle East announced that oil supplies to non-Arab nations would be cut by 25 percent based on September 1973 supply levels. In the United States, Arab oil represented 12 percent of the total oil supplies and only two percent of the nation's primary energy requirement. Although several inconveniences resulted, the economic significance of Arab oil was marginal.⁴⁸ The situation in Japan however, was much more severe.

Since oil provided 74.6 percent of the primary energy requirement of which over 99 percent was from foreign sources, the Arab-imposed oil reduction represented a cut of 10 percent of Japan's primary energy supplies (see Table 2). In terms of maintaining economic growth as a national interest, the Arab reduction was a significant blow to the nation. A drop in oil supplies presumed reductions in industrial production, exports, domestic demand, capital and employment. In short, the Japanese translation of "Arab oil reductions" meant negative economic growth, something not experienced since the early post-war years.

Since the US occupation, Japan accepted several risks to achieve economic recovery, while maintaining the positive momentum which brought international recognition. Until the 1973 Arab oil embargo, Japan's growing demand for foreign energy supplies represented a major aspect of its economic risk-taking which was left largely unguarded. While accepting this risk and providing relatively no security, Japan endured the vulnerability of foreign pressures on its economic demands. As Japan's economy grew, so did the nature of its domestic demand and dependence in the international economy. As in July 1941 when the US imposed its oil embargo, Japan's economy outpaced its sense of security for economic national interests in the postwar years until 1973.

2. Capital

Capital assets rapidly accumulated between 1952 and 1973, and as private capital increased, much of it was reinvested which fueled the ever growing economy. This cycle of capital flows operated not only in the domestic arena, but also throughout Asia as most Japanese viewed capital flows overseas as investments to nurture markets for exports and maintain good relations with resource bearing countries.

⁴⁸Okita, p. 715.

Capital assets were used to develop economic growth both domestically and overseas. Private savings contributed heavily to domestic gross capital formation which provided capital assets for industrial investments. Economic aid and private overseas investments also contributed to Japan's prosperity by maintaining favorable economic links with Japan's trade partners.

a. Domestic Capital

Although several factors of prosperity contributed to capital accumulation, private savings were largely responsible for its rapid growth. The magnitude of Japanese private savings can be realized when compared to that of the United States.

Gross private savings in Japan and the United States were similar in the early postwar years; both countries maintained approximately 16.5 percent from 1952 through 1954. Since then, Japan's private savings rate climbed to over 31 percent in 1971. From 1961 through 1971 Japan's private savings rate averaged 28.8 percent; the US average during the same period was 15.8 percent.⁴⁹ Several factors were responsible for the Japanese propensity to save, some of which were:

- The Japanese bonus system, paid twice a year, comprised a large portion of wage and salary income. This system encouraged households to save for future expenditures as bonus payments were received.
- The Japanese government offered meager social security benefits which also contributed to a willingness on the part of Japanese to save for future retirement.
- A shortage of liquid assets relative to rapidly rising income encouraged Japanese workers to save for unexpected cash requirements.
- The high cost of housing precipitated by the price of land is perhaps the most significant force which compelled the Japanese to save at high levels. Averaging 100 million people from 1960 to 1973, Japan had a population half the size of the United States' living in an area only 4 percent as large. Nearly three-fourths of the country is mountainous which further limits the availability of land for housing, forcing housing costs even higher. This financial burden bore by all Japanese has had no prospect of resolve, leaving few alternatives for most workers but to save their earnings for housing requirements, particularly for retirement.

Government fiscal policies have also contributed to Japan's propensity to save as well as rapidly growing capital formation. To spur domestic demand and increase disposable income, the Finance Ministry under Ikeda Hayato called for tax reforms to inject more money into the economy. According to Ikeda, "a 100 billion yen tax cut is a 100 billion yen of aid."⁵⁰ The reforms were implemented in the 1957

⁴⁹Chung, p. 69.

fiscal budget which resulted in the economic boom which lasted from July 1958 to December 1961, during which Ikeda became Prime Minister and launched his ambitious "income-doubling plan."

Savings played a key role in Japan's rapid economic growth. Large amounts of household savings provided low-cost capital to industry, allowing business investment to increase at a 14.4 percent annual real rate over the 1952-73 period. By maintaining high savings rates, Japanese industries and the overall economy expanded without heavy reliance on foreign capital.⁵¹ Capital formation contributed to Japan's goal of continued economic growth, however it also brought strength to economic diplomacy by bolstering its ability to influence other nations through economic means.

b. Economic Cooperation and Aid

Economic Cooperation (*Keizai Kyoryoku*) became the vague and all-encompassing term used by MITI, the MFA, and the MOF for foreign economic policy formulation. MITI sought to develop export markets for its interests in industry and trade, while the MFA hoped to improve overseas relations with resource-rich developing nations, particularly in Southeast Asia. The MOF played the role of fiscal watchdog attempting to minimize government expenditures and encourage private capital flows to overseas nations through tax incentives.

Economic policies of the postwar years attempted to coordinate domestic and international strategies for economic growth. As domestic demand formed economies of scale, economic cooperation in foreign policy addressed the strategic concerns necessary for Japan's economic growth. Economic cooperation aimed to nurture markets for Japanese exports and maintain continuous flows of foreign raw materials for its industries through development planning, extension of credits, overseas investments, procurement of resources and long term import policies for food and raw materials.⁵²

The first foreign policy review published by the Ministry of Foreign Affairs in 1957 acknowledged the significance of Asia to these goals by stating "Our own development is not assisted by an Asia without peace, progress and prosperity." Southeast Asia was a fundamental source for food and raw materials, as well as

⁵⁰Johnson, p. 16.

⁵¹Japan Economic Institute (JEI), *JEI Report* No. 17A, May 1, 1987, p. 4.

⁵²Alan Rix, *Japan's Economic Aid* (New York, NY: St. Martin's Press, 1980), p. 23.

markets for Japanese exports.⁵³ Japan's prosperity was therefore directly related to the development of its Southeast Asian neighbors.

TABLE 4
REPARATION PAYMENTS AND TERMS

Country	Reparation Payments	Terms (in years)	Beginning
Burma	\$340 million	10	1955
Philippines	550	10	1956
Indonesia	223	12	1958
South Vietnam	390	5	1960

Although reparations could hardly be considered economic aid, payments to redress Japan's actions taken under the Greater East Asia Policy established economic relationships which were later maintained through economic cooperation. Southeast Asia comprised the mainstay of Japan's reparation recipients (see Table 4), however economic aid arrangements were also concluded with a number of countries that elected to waive reparation rights, including South Korea, Laos, Cambodia, Singapore, and Micronesia.⁵⁴ Since reparation agreements were tied to procurement in Japan they formed markets with steady demands for Japanese goods and spare parts. Conversely, reparation payments contributed to economic stability and development in these countries. The success of reparation agreements established a geographical bias of official aid toward Southeast Asia as economic cooperation evolved into its next stage.⁵⁵

Lacking military power, the 1960's and seventies proved to be a period when economic cooperation developed from its infant stages based on reparation payment relationships, to one based on private overseas capital investments, Official Development Assistance, and technical aid flows to bolster its global influence. With the economic growth that rocketed during sixties and seventies came capital assets which, in developing nations, proved influential toward maintaining economic relationships and therefore contributing to the nation's prosperity.

⁵³*Ibid*, p. 25.

⁵⁴Uchino Tatsuro, *Japan's Postwar Economy: An Insider's View of Its History and Its Future* (New York, NY: Harper and Row, 1983) p. 67.

⁵⁵Rix, p. 25.

A variety of means were used to finance aid flows to developing countries, the primary of which were: Official Development Assistance (ODA), of which technical assistance is included; private flows; and other official flows (OOF).⁵⁶ Official Development Assistance funds were distributed by the government and are comprised of both grants and loans. Only nations officially recognized as developing and less developed countries by the DAC are qualified for these development funds. Private flows however, are overseas investments from private sources which Japan's Ministry of Finance has encouraged with the use of tax incentives. While the government supports its economic cooperation policy through such incentives, it benefits by not having to provide government revenues. Finally, OOFs are bilateral transactions which are primarily used to facilitate exports. They include credits issued by the Japanese Export-Import Bank and the Overseas Economic Cooperation Fund (OECF).

Distribution of funds during this period show that Japan's economic aid program was tied to its plan for continued economic growth and prosperity. By contributing to the development of nations important to Japan's own economy, Japan hoped to ensure constant flows of natural resources for its industries.

The distribution of Japan's ODA funds illustrates its focus on regional concerns. As the predominant economy in Asia, practically all of Japan's ODA contributions went to Asian countries, most of which to Southeast Asia. In 1963, 93.7 percent of these funds were distributed to Asia, of which 93 percent went to Southeast Asia. Less than one percent reached countries in the Middle East. Tokyo maintained its perspective of aid and the importance of regional economic affairs until the oil embargo of 1973 when distributions to Asia were 88.1 percent of total ODA funds while the Middle East received only .1 percent. OOF and private resources, the brunt of Japan's economic assistance, were more diversified as only 30.4 percent of these funds went to Asia, and 53.4 percent to Central and South America. Only 3.2 percent of these resources however, went to the oil-supplying Middle East region (see Table 5)

Japan's economic assistance and financial flows from 1952 to 1973 were instruments of its economic diplomacy. When Japan's economy began to surge ahead in the 1960's, Japan's private businesses were already linked into other Asian economies through overseas investments of private enterprises and OOF export credits. Using first reparations and later financial flows in ODA, OOF and private funds, Japan's policy goals aimed to coordinate its economic relations to facilitate its own

⁵⁶The category of OOF was first introduced in the DAC in 1968.

TABLE 6
GEOGRAPHICAL DISTRIBUTION OF CAPITAL FLOWS FROM
JAPAN TO DEVELOPING COUNTRIES

(in percent)

Year	Asia Total	SE Asia	Near/Mid East	Africa	Cen/South America	Europe	Other
Official Development Assistance							
1963	98.7	93.0	0.3	0.3	0.4	neg	0.3
1965	98.1	90.1	0.2	0.6	0.6	0.1	0.2
1967	97.6	71.5	0.2	0.8	0.7	0.1	0.6
1971	98.4	51.2	0.9	3.0	-2.6	-0.2	0.5
1973	88.1	53.8	0.1	2.6	4.6	2.0	1.3
OOF and Private Flows							
1963	33.5	22.8	14.1	29.1	13.5	8.7	1.0
1965	32.3	26.4	3.2	37.6	17.0	9.9	0.1
1967	33.8	5.6	14.8	42.7	9.7	-1.0	neg.
1971	52.3	11.8	7.3	10.5	23.2	4.2	2.6
1973	30.4	15.8	3.2	8.5	53.4	3.0	1.4
Total Flows							
1963	56.0	34.4	8.0	16.4	10.3	4.9	4.4
1965	53.4	27.8	1.9	22.4	13.4	5.9	2.9
1967	58.3	25.2	8.1	23.3	5.2	-0.4	5.3
1971	64.1	21.8	5.6	8.6	16.6	3.0	2.1
1973	39.1	21.5	2.7	7.6	46.1	3.0	0.2

Source: Alan Rix, *Japan's Economic Aid* (New York, NY: St. Martin's Press, 1980), p. 34.

economic growth, however neglected to adequately address the vital petroleum link with the Middle East.

Although the Arab oil embargo may be viewed as Japan's failure in terms of economic cooperation goals, its successes in maintaining regional economic links is unquestioned. The Arab oil embargo forced Japan to quickly redistribute its financial assets to include the far reaching markets and suppliers of its ever-growing economic interdependence.

3. Exports

a. Export Policies

Coordinated economic policies were largely responsible for rapid growth through the late 1950's, sixties, and seventies. Domestic demand formed economies of scale for industrial production while exports contributed to economic growth and earned revenue for foreign supplies. In 1951 the Japanese government, led by officials

of the Ministry of Foreign Affairs and MITI, implemented tax reforms in favor of export industries. Revisions of the existing Taxation Special Measures Law exempted up to 50 percent of a firm's export earnings. In 1955, in response to the Comprehensive Policy for Economic Expansion established a year earlier, the Law was again revised this time to exempt 80 percent of export earnings.⁵⁷ The strategy of exports to affluent nations and Southeast Asian markets was successful in terms of economic growth, however trade deficits *vis a vis* Japan's trade partners began to grow bringing new challenges to Japan's economic diplomacy.

Japan's ability to use foreign and domestic markets for economic growth can be attributed to its shift to heavy and chemical industries, relatively low oil prices during this period and stable Yen:Dollar exchange rates favorable to Japanese export. Industrial production climbed rapidly from 1960 to 1973 with a 27 percent average annual increase. As already discussed, Japanese industries were heavily dependent on foreign oil which it imported at low prices until the oil embargo of November 1973. The economic prosperity that ensued under these conditions brought capital accumulation, much of which was reinvested in growing industries. Table 7 shows the rapid rise in industrial production as an index starting at 18.7 and climbing to 84.6 in 1973.⁵⁸ Table 7 also outlines the stable price of crude oil which was suddenly altered by the Arab oil embargo in late 1973.

Economic growth and capital reinvestments contributed to the development of Japanese industries which is evident in its composition of exports. In 1960 light industry goods comprised 46 percent of Japan's exports while heavy goods represented 44 percent.⁵⁹ By 1973, the shift in industry and emphasis on finished heavy products brought these exports to 1,633,066 million yen or 79 percent of Japan's total exports, light goods comprised only 16.3 percent of exports (see Table 8).

The shift to appliances and heavy industry products for export to affluent overseas markets implemented by the *Comprehensive Policy for Economic Expansion* proved extremely successful. Japan's exports comprised an average of 11 percent of its

⁵⁷Johnson, p. 234.

⁵⁸IMF, *International Financial Statistics* p. 421.

⁵⁹Heavy-industry goods include textile machines, sewing machines, televisions, radios, motor vehicles, motorcycles, aircraft, vessels, tape recorders, plywood, and toys by the Office of the Prime Minister, Bureau of Statistics, *Japanese Statistical Yearbook 1978*. "Others" under heavy goods comprised an insignificant amount. Light industry goods consisted primarily of textiles and apparel goods.

TABLE 7
FACTORS CONTRIBUTING TO EXPORTS AND ECONOMIC GROWTH

Year	Exports (Bns of \$)	Industrial Production	Yen:\$ Exchange	Crude Prices
1960	1.774	18.7	359.91	1.50
1965	3.563	32.5	361.49	1.33
1966	4.166	36.8	362.35	1.33
1968	5.527	50.7	360.55	1.30
1969	6.818	58.8	358.37	1.28
1970	8.273	66.9	358.07	1.30
1971	9.895	68.6	347.86	1.65
1972	10.378	73.6	303.17	1.90
1973	12.133	84.6	271.70	2.70

Source: IMF, International Financial Statistics Yearbook 1986.

TABLE 8
JAPANESE LIGHT AND HEAVY EXPORT GOODS IN MILLIONS OF YEN AND PERCENT

Year	Light Exports		Heavy Exports		Total
1960	681,368	47%	647,833	44%	1,459,633
1965	969,272	32	1886,602	62	3,042,627
1973	1633,066	16	7968,842	79	10,031,427

Source: Office of the Prime Minister, Japanese Statistical Yearbook-1978

GNP from the late 1960's and seventies compared to 5 percent of the US economy; Japan's export volume increased at a rate over 16 percent annually from 1961 to 1973.

Although Japanese exports increased with Japan's economy, trade imbalances with its security partner, the United States, did not become heated until 1968. Japan's economy had an exceptionally good year in 1965 when its GNP and exports rose 13 and 23 percent respectively. Recession in the US overshadowed the problem of rising Japanese exports in that year, particularly since the overall US current account was a surplus figure.

US fiscal policies to support expenses for the Vietnam War, brought inflationary conditions causing greater demand for Japanese goods. Japanese exports to the US increased by 36 percent in 1968, 21 in 1969, 10 in 1970 and 27 percent in 1971. In 1971, the US trade deficit with Japan grew by over 480 percent from the previous year, from -\$450 million in 1970 to -\$2615 million in 1971 and US pressure mounted for Japan to revalue its yen.⁶⁰ Japan persistently refused on the basis that a revaluation would hinder the nation's export industries while disturbing the value of assets, debts, and other financial relations between Japan and its trading partners. Moreover, many Japanese officials stubbornly refused revaluation on the grounds that Japan's economic policies would appear as a failure before the Japanese people. US-Japan trade friction became intense as many Americans blamed overwhelming Japanese exports, a misaligned Yen:Dollar exchange rate and Japanese trade barriers as the cause for its first current account deficit in ten years.⁶¹

In the wake of US initiatives for rapprochement with the PRC (the first "Nixon Shock"), the move to devalue the dollar in 1971, broke the 22 year exchange rate formed by the post-war *Economic Stabilization Plan*. Japan could no longer take the US market for granted as this monetary initiative, later called the second "Nixon Shock," forced the Japanese to reconsider its economic dependence on the US. Japan was no longer a nation bordering on starvation and recovering from war. The exchange rate, antiquated by Japan's economic successes, was allowed to float in late 1971 with hopes of bringing more equitable trade conditions.

4. Science and Technology

As Japan's economy prospered from the mid-1950's to the early 1970's, striking changes in Japanese exports reflected more sophisticated goods and a steady decline in the share of labor-intensive products. These developments were due to constant infusion of the latest technologies.

Technology, or the design and manufacturing know-how required to produce goods, was an integral aspect of Japan's economic successes. The shift to heavy industries instituted by the Comprehensive Policy for Economic Expansion, thrived on the infusion of technologies imported from the west, primarily the United States. As

⁶⁰International Monetary Fund, *Direction of Trade Statistics Yearbook* (Washington, DC: IMF, 1971 and 1978) p. 170 and p. 145 respectively.

⁶¹Margaret Garritsen de Vries, *The International Monetary Fund 1972-1978: Cooperation on Trial*, vol. I: *Narrative and Analysis* (Washington, DC: IMF, 1985), p. 70-5.

Japan entered the high-growth years of the 1960's, the need for advanced technologies became more important since remaining competitive in world markets meant keeping up to date with the latest innovations.⁶²

Research and development, or the pursuit of knowledge in a specific area with specific goals, has been the mother of technology. Although Japan's economic recovery was evident by the late 1950's in terms of GNP growth and production, its research and development efforts had not experienced the same gains as Japan continued to buy and license technology. The United States was clearly the world's leader in research and development since the close of world war and American goods were extremely competitive in world markets as advanced technologies were applied to production, consumer products, military systems, and space exploration. As the US was instrumental in Japan's economic recovery in the immediate postwar years, it was also instrumental in Japan's technological recovery by supporting its research and development progress with advanced technical information.

The most striking example of technical information sharing by the US to Japan, was in the field of electronics. Japan's economic development required technological growth to pull it away from resource intensive industries; electronics was a means of reducing those industrial resource demands.

a. Japan's Technology Dependence on the US in Electronics

United States research and development assets emerged from the war years relatively intact compared to those of Japan and Europe. This advantage and America's thriving economy formed an environment in which United States technology outpaced all other nations. Additionally, US research and development was driven by two factors absent in Japan: the desire to maintain military superiority and a race against the Soviet Union into outerspace.

As already discussed in the previous chapter, US research and development established transistor technology which laid the foundation for Japan's electronics industries in the early 1950's. Due to military necessities for advanced electronics, US progress in this field continued at a tremendous pace. Advanced electronics evolved from transistors, to integrated circuits, to sophisticated information processors. As US research and development used the momentum of military and space efforts, Japanese

⁶²Lawrence Klein and Kazushi Ohkawa, *Economic Growth: The Japanese Experience Since the Meiji Era* (Homewood, IL: Richard D. Irwin Inc., 1968), p. 28.

⁶³Hugh Patrick and Henry Rosovsky, *Asia's New Giant: How the Japanese*

industries sought foreign technologies for consumer goods and potential exports.⁶³ Japanese researchers and private enterprises were eager to receive technology in the wake of US progress.

Japanese research and development goals contrasted markedly from those of other industrialized nations as pertinent statistics indicate. In 1972, Japanese government expenditures provided only 27.2 percent of total research and development costs, while private enterprises bore the lion's share of the nation's investment with over 72 percent. Compared to other industrialized nations, Japan's government spending ranked low as the French government spent 62.3 percent of the nation's total research and development costs, the United States 55.6 percent, and the United Kingdom 50 percent. While these governments had heavier commitments to military and space exploration development, the crux of Japan's investment went to industrial technology and consumer goods development.

While Japan developed its transistors and produced pocket-sized radios in the 1950's, the US research and development engineers had their goals set on different objectives. The Department of Defense and NASA sought rugged, miniaturized electronics for defense, and exploration of outer space. In 1959, Texas Instruments, under contract by the US Air Force, developed integrated circuits for use in the Minuteman II missile. Fairchild's "planar process" of etching integrated circuit designs on chemically treated silicon wafers won it a NASA contract for the APOLLO space program. Twelve key military and space contracts were awarded in the early 1960's which totalled over \$80 million and by 1963, international sales in integrated circuits surpassed \$1 billion.⁶⁴

On the other side of the Pacific, Japan produced transistor products oriented toward the consumer market. Lacking military demand and an indigenous space program, Japan's break into integrated circuit technology would not have come without help from the US. MITI played a major role in preparing the private sector for Western technology.

In 1952 after MITI imposed restrictions on foreign investments and American transistor imports, Japanese electronics producers signed agreements with foreign firms to acquire transistor technology with the encouragement of MITI.⁶⁵ As a

Economy Works (Washington, DC: The Brookings Institute, 1976), p. 535.

⁶⁴Tatsuno, p. 11.

⁶⁵Due to balance-of-payment concerns, the Japanese Government imposed controls over foreign investment via the Foreign Investment Act of 1950. Although

result, Toshiba and Hitachi signed technology agreements with RCA and Western Electric, and Matsushita with Philips and Western Electric. The relationship helped Japanese industries develop their first generation computers. By the 1960's, an NEC - Fairchild agreement was reached which licensed the planar technology to the Japanese company. The sub-license was instrumental in, once again, bringing Japanese electronics producers up to date with US technology. Mitsubishi Electric and NEC were the first Japanese corporations to produce an integrated circuit in 1965, followed by Toshiba in 1966, Fujitsu and Oki in 1967, and Sharp in 1969. The relationships established between Japanese and American producers through the 50's paid valuable returns in the 60's. The dichotomy between Japanese and US technology application was repeated in the 1960's; Japan's electronics evolution went from radios to memory calculators while US primary applications went from telecommunications to missiles and spacecraft.

b. The Nature of Japan's Research and Development

Industry was the heart of Japan's economic miracle, however as Japan's economy grew, it became more integrated in the international community and dependent on foreign resources. Economic growth consumed the national interest and failed to adequately recognize the vulnerabilities of overseas dependence for resources. The nature of Japan's research efforts was a manifestation of its interests in economic growth, not its concern over the vulnerabilities in foreign resource dependence.

Japanese industries were the primary beneficiaries of research, utilizing 65.9 percent of research expenditures in 1972.⁶⁶ Industrial technologies and product development attracted most of the research funds in this field.

As already noted in Table 2, Japan's dependence on foreign energy resources was 86.4 percent in 1972, while nuclear energy contributed only .7 percent of the primary energy supplies. Despite this imbalance, Japan's commitment to nuclear energy development was only 4.35 percent of total research and development expenditures.

Merton Peck and Shuji Tamara, in *Asia's New Giant: How the Japanese Economy Works*, state that this law had little influence in Japan's overall balance-of-payments situation, it gave considerable power to MITI as the controlling authority over foreign investments to include foreign technology imports.

⁶⁶The Oriental Economist, *Japan Economic Yearbook - 1974* (Tokyo, Japan: The Oriental Economist, September 1973), p. 94.

Rapid economic growth had detrimental effects on the environment as pollution, congested transportation systems, and health problems emerged in the mid-1960's.⁶⁷ As a result, anti-pollution development received 3.2 percent of the research and development funds. Other areas included information processing (3.2 percent), space development (1.9 percent) and marine development (.79 percent).

The Arab oil shock of November 1973 radically altered Japan's perception of research and development as vulnerabilities in foreign resource dependence became evident and greater efforts were taken to obtain advanced energy related technologies. Research and development, diplomacy and economic cooperation, melded together to form the primary instruments of Japan's national security policy.

C. SUMMARY 1952-1973

The US-Japan partnership formed from 1945 to 1952 established the backdrop for Japan's postwar recovery. The Mutual Security Treaty ensured Japan the protection of America's nuclear umbrella for its primary defense needs, while the Yoshida Doctrine formed the foreign policy framework for Japan's economic umbrella. In the years which followed the return of Japan's sovereignty, economic recovery evolved into an "economic miracle" as the *Comprehensive Policy for Economic Expansion* guided the nation's economy to include global markets.

During the process of economic expansion, the evolution of economic security issues can be viewed in the areas of domestic demand, capital formation, exports, and technology. While domestic demand provided the momentum for production during the recovery years, the nation's petroleum-based economy formed an insatiable appetite for energy during the rapid growth years of the *Income-Doubling Plan* and the 1960's. Heavy dependence on cheap and plentiful oil supplies formed a blind trust with the Middle East, leaving Japan vulnerable to oil supplies used as a political weapon.

Domestic industries and Japan's overall economy expanded as a result of capital formation supported by extremely high savings rates. While these rates were markedly higher than other industrialized nations and contributed to Japan's domestic and overseas capital flows, the Japanese propensity to save and invest became a national asset contributing to economic growth. Although the period can be viewed as Japan's infancy in economic aid programs (from reparations to the beginning of Official

⁶⁷T. J. Pempel, *Policy and Politics in Japan: Creative Conservatism* (Philadelphia, PA: Temple University Press, 1982), p. 222-3.

Development Assistance and Other Official Flows), it marks the beginning of Japan's global economic influence in the postwar period.

After concluding the US-Japan security arrangement, an economic relationship developed which accelerated Japan's recovery toward prosperity. In addition to profitable markets, the US-Japan economic relationship offered secure flows of food, mineral resources and modern technology for industrial applications and consumer product improvements. As Japan's industrial production capacity grew, so did exports and prosperity.

During the years from 1952 to 1973, Japan was a developing nation seeking international recognition through economic success. By hosting the 1964 Olympic Games and achieving membership to the Organization of Economic Cooperation and Development as an industrialized nation in 1966, Japan achieved the success it sought and continued to maintain its focus on economic growth.

Prosperity became the key to Japan's economic security during this period. With prosperity came *purchasing power* to procure vital natural resources for a nation rich with skilled labor and management, and cursed with meager quantities of domestic minerals and arable land. Although the economic miracle owed much to security through purchasing power from the mid-sixties to 1973, Japan accepted risks in foreign mineral dependency which did not become fully apparent until the Arab oil embargo of November 1973. Although the 1973 oil embargo marks the end of this phase in Japan's security and economic development, this event forced Japan to address its greatest vulnerabilities and develop security policies to meet these threats.

IV. COMPREHENSIVE SECURITY AND ECONOMIC FACTORS 1974-1988

Economic growth through the fifties, sixties, and seventies elevated Japan's position in the international community, however 1974 marks the beginning of new challenges for both Japan and the United States. The ingredients of Japan's "economic miracle" were a combination of industrial production, exports to affluent markets and accepting risks inherent in foreign mineral and energy dependence. The Arab oil embargo challenged these risks and created the necessity of a new look for Japan's economic security policies.

Heavily dependent on foreign resources and markets, and restricted from using military means, Japan's well-being was subject to international developments largely beyond its control. Furthermore, the United States began to show signs of declining power in international affairs. From Tokyo's perspective, the fall of Saigon, and incidents such as "Watergate" and the failure of "Desert One" to rescue US hostages in Tehran indicated a decline of US power. Also, the US lead as the world's largest economy gradually shrank as several countries continued to prosper after postwar recovery. In 1950, the US economy bore 52 percent of the world's GNP, however by 1982 this statistic had dropped to 22 percent. Although the US portion of the world's total economy is now smaller than during the immediate postwar years, there are at least two significant reasons why this is not an accurate assessment. First, it belies the fact that several developing countries of the 1950's and sixties are now developed, industrialized nations sharing a much larger portion of the world's economy with the US. Secondly, industrialized economies are now more integrated compared to the immediate postwar years and, as multinational corporations harness the assets of several countries, they actually make participating nations economically stronger. Despite these contrary facts, Japanese policy makers such as deputy vice minister for foreign affairs, Kitamura Hiroshi, have viewed the US economy as a "decline in national power."⁶⁸

⁶⁸Kitamura Hiroshi, Murata Ryohei, and Okazaki Hisahiko, *Between Friends: Japanese Diplomats Look at Japan-US Relations* (New York: NY, Weatherhill, Inc., 1985), p. 3-17.

External forces compelled Japan to make major policy changes in national security affairs.⁶⁹ No longer struggling in postwar poverty, Japan had become a global economic power lacking experience in postwar leadership. The nation has been reluctant to seize "international responsibilities" commensurate to its economic strength. Lacking military power, dependent on international trade, and allied to a declining superpower with tense economic relations, Japan had a difficult time finding creative solutions to complex problems. Economic success was less than a complete asset for security. By 1980, the doctrine of Comprehensive Security was conceived which embodied Japan's national security policy, placing greater emphasis on the nation's technological, economic and diplomatic assets.

A. SECURITY DEVELOPMENT

The international environment of the seventies and eighties could no longer be exclusively characterized as one of Cold War. International developments, particularly *vis a vis* the superpower nations, led to a climate of detente. The focus of East-West relations shifted from ideological differences and overall international relations improved as political and military tensions were relaxed in the wake of the arms race. During this climate of relaxed military tensions, Japan, under Prime Minister Miki Takeo, established its three nuclear principles and one percent limit on defense spending in 1976. In that year, Tokyo also announced it would "...take necessary measures to refrain the public from all exports of arms and defense related equipment," in effect placing a self-imposed ban on arms exports, further distancing itself from situations in armed conflict.⁷⁰

Japan's security development occurred in light of its relationships with the United States, the PRC and Soviet Union. As its integration with the global community strengthened through political and economic ties, Japanese values developed a deeper concern for security issues. In addition to relations with the United States, Japan's overall foreign and security policies further developed in light of its relationships with the Soviet Union and the People's Republic of China. While relations with the Soviet Union since 1973 have lacked significant progress, developments in the Beijing-Tokyo arena made tremendous gains to the benefit of Japan as well as its Western allies.

⁶⁹Richard J. Solomon Jr., *Asian Security in the 1980's: Problems and Policies for a Time of Transition* (Cambridge, MA: Oelgeschlager, Gunn and Hain, Publishers, Inc., 1979), p. 70.

⁷⁰Toshiyuki Shikata, "How Japan Buys and Sells Its Arms," *Defense and Foreign Affairs Digest* 7 (July 1983): 26.

While Japan's prosperity is largely responsible for these gains, US pressure for its allies to assume greater responsibility is also a factor as America underwent political, economic and security difficulties of its own.

1. Security Relations with the United States

The Japanese became concerned about the reliability of its security partner as the United States showed signs of declining power. The US withdrawal from Vietnam and subsequent fall of three Indochinese countries, ambiguous military support for the Republic of Korea, and US failure to effectively act during the Iranian hostage incident severely diminished America's image as the world's policeman and reliable ally. Politically, the results of Watergate affected US international relations as presidential powers were curbed, while those of Congress increased. Hampered by Congressional legislation such as the War Powers Act, international relations became more difficult as limitations were increasingly placed on presidential discretion and Congress began to exert more of its will in foreign affairs.⁷¹ Economically, many US industrial sectors staggered after the second oil crisis, questioning America's economic power and influence in global affairs. The automobile and steel industries were especially hard hit in the early 1980's as Japan was compelled to reduce its competition in these areas through self-imposed quotas to avoid the more detrimental alternative of protectionist legislation threatened by Congress. In other industries, US accusations of unfair, predatory trading practices fueled tensions between the two nations.

As the final US presence left Vietnam and Saigon fell on April 30, 1975, so did Japan's fear of being drawn into the regional conflict. However with this withdrawal, Japan pondered the level of US commitment to its region and strength of the Mutual Security Treaty. These concerns were compounded by growing US criticism in the late 1970's that Japan's prosperous economy enjoyed a "free ride" in security matters at the expense of the United States. The Yoshida Doctrine, particularly its concept of minimal defense spending, was challenged by its security partner as rising Japanese trade surpluses became a dominant issue in the US.

The 1973 oil shock, tensions on the Korean Peninsula, and the fall of three Indochinese nations to communist control in 1975 all contributed to Japan's decision to adopt a National Defense Program Outline (NDPO) in 1976. Moreover, America's withdrawal from Southeast Asia, candidate Jimmy Carter's campaign promises to withdraw forces from Korea, and strong US pressure to contribute more to its own defense compelled Tokyo to adopt a program for improving its defense capabilities.

⁷¹ Kitamura, Murata, and Okazaki, p. 3-17.

The NDPO sought to achieve minimal levels of defense capable of defending the Japanese homeland under the arrangements of the US-Japan Mutual Security Treaty. Quantitative measures were not the focus of the program as its primary objectives were to implement major improvements to the quality and capability of Japanese forces.⁷²

The Carter administration took office in 1977 prepared to withdraw US forces from Korea. The incipient departure of troops from the ROK suggested a diminution of the US-Japan security arrangements as Tokyo perceived a decline in US security commitments in Asia. Since troop reductions were announced without consulting Japanese officials, relations were particularly strained.⁷³ After formally announcing the US withdrawal, Undersecretary of State for Political Affairs Philip Habib was sent to meet with President Park and Prime Minister Fukuda where Japanese officials protested US troop reductions arguing it would create considerable danger to the security of South Korea and Northeast Asia in general.⁷⁴ Carter eventually reversed his position which seemed to confirm Japanese suspicions of US uncertainty to its security commitments.

As Reagan entered office in 1981, his administration focussed on the growing Soviet presence in Asia as Japan's call to increase defense spending. Secretary of Defense Caspar Weinberger linked economic and security issues by suggesting to Tokyo that unless its military capability was considerably and speedily increased, opinion in Congress would most likely demand American restrictions on Japanese imports.⁷⁵ It has been Congress, under the influence of economic issues, most dissatisfied with Japan's defense efforts. Using its power to legislate and issue resolutions, Congress has been increasing pressure on Tokyo to raise its share of defense burdens. In December 1982, angry over Japanese auto imports, the Senate adopted a resolution proposed by Michigan Senator Levin calling for a rapid increase in defense spending to between 1.4 and 2.0 of its GNP.⁷⁶ Although military expenditures did not appreciably increase under Prime Minister Suzuki Zenko due to

⁷²Solomon, p. 100-1.

⁷³Michael Leifer, *The Balance of Power in East Asia* (New York, NY: St. Martin's Press, 1986), p. 34.

⁷⁴Onkar Marwah and Jonathon D. Pollack, eds., *Military Power and Policy in Asian States: China, India, and Japan* (Boulder, CO: Westview Press, 1980), p. 149-50.

⁷⁵Leifer, p. 35.

⁷⁶Research Institute for Peace and Security, *Asian Security-1983* (NY, New York: Brassey's Defense Publisher, 1983), p. 43.

his overriding concern for growing fiscal deficits, Japan's participation in security matters made symbolic advances. Under Suzuki, RIMPAC operations (naval exercises in the South Pacific) increased and Japan committed security efforts toward a 1000 nautical mile security sector south of Japan.

In 1982, Nakasone Yasuhiro became Prime Minister bringing to the office an urgent concern for matters in foreign affairs and defense. As former head of Japan's Defense Agency and Minister of International Trade and Industry, Nakasone was more than familiar with defense and economic issues. His American-like approach to politics was atypical of Japanese officials as he was outspoken, straightforward and concerned with his media image. It was under his leadership and commitment to the NDPO during times of slower economic growth that Japan abandoned the one percent of GNP limit for defense spending.

As trade tensions increased in April 1987, the CIA revealed an illegal sale of computerized milling machines to the Soviet Union by Japan's Toshiba Machine Corp. (a subsidiary of Toshiba Corp.), in association with Kongsberg Vaapenfabrik of Norway. The milling machines sold by the two companies between 1982 and 1983, made supercontoured propeller blades, making US detection of Soviet submarines more difficult. With these new propellers, Soviet submarines have become capable of almost silent movement, reducing the US acoustic-detection distance from 200 miles to as close as 10 miles. With these figures, Congressional estimates of the \$17 million transaction have placed the cost to the West at over \$30 billion to regain the superiority lost from the sale.⁷⁷ Although most Japanese were thoroughly embarrassed as a security partner, several US congressmen seized the moment as a Japan-bashing opportunity, demonstrating their sentiments by smashing Toshiba Corp. (the parent company) consumer products on national television.

On March 28, 1985, prior to revealing Toshiba's illicit sales, the US formally invited Japan and other allies to participate in the research and development of its latest defense concept: the Strategic Defense Initiative (SDI). The concept presented to President Reagan by Edward Teller, architect of the first H-bomb and former head of the Lawrence Livermore Laboratory, is to render nuclear weapons obsolete via a space-based laser shield. Nakasone delayed his decision as his cabinet pondered its commitment to the nonnuclear policy; the questionable outcome as to whether SDI would escalate rather than eliminate the arms race; support of the UN resolution to

⁷⁷Clyde H. Farnsworth, "Toshiba, Norway Unit Assailed in Soviet Sale," *New York Times*, May 1, 1987, p. 26.

use space for peaceful purposes, adopted by the Diet as early as 1969; and the problem of US standards in security clearances.⁷⁸ Although Secretary Weinberger requested a response in 60 days, Nakasone's first response came on January 2, 1986 when he acknowledged an "understanding" of the SDI plan. Nakasone cited three points: first, SDI was not an offensive but defensive system; second, it was nonnuclear; and third, its purpose was the worthy goal of eliminating nuclear weapons. Domestic policies based in these issues made Japan a hesitant partner in SDI participation. After considerable deliberation while eager to strengthen ties with the US, Nakasone believed the system to be compatible with Japan's ideals. The problem of security clearances could be resolved by invoking the US-Japan Mutual Defense Assistance Agreement (MDA), the means by which military aid is provided to Japan under the auspices of the US-Japan Security Treaty.⁷⁹ On July 21, 1987, more than two years after the initial invitation, an agreement was signed designating terms under which Japanese companies could participate (see Appendix D).

In the eyes of many Congressmen, the Toshiba incident raised doubts as to Japan's reliability as an ally and its ability to safeguard sensitive technology. Trade friction between the two countries compounded Congressional reluctance as foreign participation in SDI had already been attacked in Congress as an effort to "buy" the friendship of other countries through potentially lucrative contracts. During the 99th Congress, Senator John Glenn proposed the most restrictive legislation, limiting foreign participation to situations where competitive domestic firms could not be identified for specific contracts. While this action is still pending, other legislative measures against Japan's participation have passed. In September 1987, the Senate passed an amendment to the Defense Department Authorization Bill proposed by Senator Sam Nunn, restricting foreign participation unless allies were willing to pay a significant share of SDI-related contracts.

⁷⁸Takase Shoji, "The Problem of Participating," *Japan Quarterly* 33 (July-September 1986): 3, p. 244-51.

⁷⁹The LDP has attempted to pass legislation for provisions pertaining to classified information on several occasions. During the latest attempt in June 1985, the LDP presented an anti-espionage bill to the Diet, but the bill met with strong opposition from minority parties and the press, and died six months later. Under the current plan to secure SDI information, the Secrets Protection Law, passed in conjunction with the MDA Agreement in 1954, will be put into effect to ensure appropriate security for military technology.

The Senate's vote on the Defense Department Authorization Bill served to reemphasized Congressional sentiments of unfair defense-burden sharing by its allies. In light of mounting US legislative pressure focussed on Japan's defense spending and trade practices, Japan took initiatives to improve its defense capabilities. The 1987 Japan Defense Agency's White Paper released in August cited the Soviet Union's military buildup as the primary reason for improving the country's defenses primarily through additions to its naval and air fleets. The paper called for over-the-horizon radar, airborne early-warning aircraft (P-3's), mid-air refueling tankers, advanced interceptor aircraft, *Patriot* surface-to-air missiles to replace outdated *Nike* missiles, and the *Aegis* shipboard air defense missile system to be incorporated in Japan's defense organizations.⁸⁰ Although the FY 88 defense budget surpassed the old limit by only .004 percent, the initiative had symbolic significance which manifested Japan's commitment to the NDPO and maintenance of adequate defense capabilities in light of US Congressional pressure to spend more on defense.

As Nakasone left office, the transfer of leadership to Takeshita Noboru brought a contrasting, more traditional leadership style to the office of Prime Minister. Rising to power in support of key figures rather than command of issues, Takeshita's greatest talent lay in his ability to meld opposing views, a virtue essential in Japan's political nature of consensus decision making. Despite this contrast in leadership style, little in the way of policy changes should be expected. As leader of a nation with growing international responsibilities and tensions with the United States, it will be difficult for Takeshita to implement security policies with any significant contrast to those of his predecessor. This has become evident in defense matters as Takeshita maintained support for defense budgeting. During a December 1987 session of the Budget Committee in the Diet's lower house, Takeshita pledged to continue defense spending in order to maintain defense capabilities despite the US-Soviet treaty to scrap medium and shorter range missiles. He was joined by his new Defense Agency Director General, Kawara Tsutomu (Miyazawa faction), who remained committed to strengthening defense capabilities in accordance to the NDPO.⁸¹ Takeshita's cabinet followed up with approval of a 5.2 percent increase in Japan's defense budget which will enable the Defense Agency to meet approximately 60 percent of its procurement

⁸⁰Japan Defense Agency, *Defense White Paper-1987*, trans. The Japan Times (Tokyo, Japan: The Japan Times, 1987), 59-125.

⁸¹*KYODO*, December 1987, "Takeshita To Continue Nakasone Defense Policy," *FBIS, East Asia*, 10 Dec 87, p.4.

goals outlined in the FY 1986-90 five-year program by the end of FY 1988. The program is in its third year and procurement goals are on schedule, representing Takeshita's commitment to the NDPO. In addition to Takeshita's commitment to the NDPO, Tokyo plans to increase its host nation support for US military bases. Japan's FY87 budget for host nation support provided for 40 percent of the \$6 billion cost of maintaining US forces at over 100 military facilities and 50 percent of the local labor cost allowances and benefits for 21,300 Japanese employees. Tokyo plans to assume 100 percent of these labor cost by 1990. For FY88, the defense budget includes Y320 billion (\$2.6 billion at Y124:S1) for 55,000 US personnel, amounting to more than \$46,500 per person.⁸²

2. Japan-People's Republic of China Relations

Apart from the central importance of the US security tie, relations with the People's Republic of China (PRC) and the Soviet Union have been primary foreign policy concerns for Tokyo. Japan's relations with the two communist powers were difficult as Sino-Soviet relations were strong, however as the relationship deteriorated, a new policy dilemma formed for Japanese officials. Competition for Japanese relations between the two communist powers gave Japan a stronger bargaining position while also presenting a precarious political situation.

Japan's "equidistant diplomacy" and economic strength played an important role in attracting both communist nations as the PRC underwent its "Four Modernizations" and the Soviet Union sought foreign capital and advanced technology for its Siberian development projects with hopes of bolstering the overall Soviet economy. Both the PRC and Soviet Union hoped to improve relations with Japan for its assistance in recovering the economic failures of socialism. The Sino-American rapprochement paved the way for increased Japanese economic interaction and, as a result, the PRC enjoyed a significant advantage over the Soviets for improved relations with Tokyo. This advantage finally materialized in a long-term, \$20 billion trade agreement (covering the period 1978 to 1985) on February 16, 1978.⁸³

The Sino-Japanese economic partnership has proved to be profitable to both nations and beneficial to the security of Western allies. The trade agreement increased China's oil exports to Japan from seven million to 15 million tons in exchange for Japanese industrial hardware valued at \$10 billion. As a result, PRC exports to Japan

⁸²JEI, *JEI Report No. 19A*, May 13, 1988, p. 8.

⁸³Hong N. Kim, "Sino-Japanese Economic Relations Since 1978," *Asian Perspective*: 9 (Fall-Winter 1985) 2, p. 155.

reached 5.3 billion in 1981 marking the first surplus current account with Japan in 17 years. Crude oil and coal exports comprised over half of China's exports to Japan bringing a surplus of over 200 million that year.⁸⁴ Superior technology, industrial expertise, capital assets, and close proximity to the China mainland were factors which made Japan an attractive source for fueling China's modernization.

In security matters, Tokyo and Beijing began to see Soviet behavior in a similar light as both capitals condemned the invasion of Afghanistan and the Soviet backed Vietnamese occupation of Cambodia. Rising Soviet military presence in Asia has contributed to closer PRC-Japan relations as these nations became increasingly concerned with the Soviet threat.

Although Japan has reaped economic benefits with the PRC, close economic cooperation with China also serves to draw Beijing closer to the side of Western powers, thus serving the security interests of the West. The West may avoid the disaster of a renewed Sino-Soviet bloc if Japan continues to share the common view of the Soviet Union as the greatest potential threat; maintains its economic strength, attractive to China's modernization plans; and nurtures a mutually beneficial Sino-Japanese relationship.

Together the US and Japan have made efforts to strengthen relations with Beijing and thereby improve the chances for peace and security in Northeast Asia. Since Secretary of Defense Weinberger's first visit to Beijing in September 1983, the US has eased the ban of high technology exports to China established by the Coordinating Committee on Export Controls (COCOM) in 1949. As a result, US sales of high performance UH-60 "Blackhawk" helicopters and technology transfers related to explosive ordinance have been completed. Negotiations for a port visit were completed and in the wake of Weinberger's second visit in October 1986, US warships stopped in Qingdao for the first Chinese port call during communist rule. Sino-Japanese security cooperation have also made considerable progress in light of the fact that Japanese officials are currently considering a military exchange with the PRC, something unthinkable by both countries a decade ago.⁸⁵

⁸⁴Research Institute for Peace and Security, *Asian Security-1982* (NY, New York: Brassey's Defense Publisher, 1982), p. 85-7.

⁸⁵"East Asia Becoming Fluid and Sino-US Military Cooperation," *Nihon Keizai Shimbun*, 8 Oct 86, p. 2, as found in *American Embassy Translations*, Tokyo, Japan.

With the commencement of Sino-American and Sino-Japanese rapprochement, Soviet military presence in the Pacific region have grown bringing increased tensions. Soviet global behavior, highlighted by the 1979 invasion of Afghanistan and shoot-down of Korean airliner flight 007 on September 1, 1983, reinforced Japanese perceptions of the communist power as an unpredictable force in international relations. In addition to Japan's historical distrust of the Soviet Union, the northern territories issue continues to obstruct improved relations as Japan demands return of the islands *sine qua non* a Soviet peace treaty.

3. Japan-Soviet Union Relations

Moscow's anticipation of China's normalization of relations with the US and Japan, created a fear for the possible formation of a US-China-Japan coalition of forces against the Soviet Union. As a result, in 1978, Moscow began to bolster its military forces in Asia by creating an independent theater command for its Far East forces at Ulan Ude in the Siberian Military District while expanding its Pacific fleet. This military buildup in East Asia poses an ominous threat to Japan and the whole of Northeast Asia. Soviet military capabilities in Asia are extremely disparate *vis a vis* Japan's limited Self-Defense Forces. Since 1978, the Soviet Union has deployed approximately a third of its entire force in East Asia. Over 50 divisions are deployed along the Sino-Soviet border and Northeast Asia, with approximately 1700 tactical aircraft.⁸⁶ Logistical tasks to support the military have been aided since the completion of the Baikal-Amur Mainline (BAM) in September 1984. SS-20 intermediate range missiles have been deployed in the region at the rate of two launchers per month since the late 1970's. In September 1985, 144 SS-20 missiles were known to be deployed in the region.⁸⁷

With the fall of Saigon in April 1975 and the Soviet-Vietnamese Treaty of November 1978, the Soviet Union gained access to a warm water military port in Asia and have since expanded facilities and combatants in Vietnam. At Cam Ranh Bay, the Soviet Union has deployed the largest number of Soviet forces outside its national boundaries with the exception of those involved in the invasion of Afghanistan. According to Admiral James A. Lyons Jr., US Navy Commander in Chief of the US

⁸⁶Department of Defense, *Soviet Military Power* (Washington, DC: US Government Printing Office, March 1986), p. 139.

⁸⁷Ichiro Takizawa, "National Security and Technology Transfer," *Economic and Pacific Security: The 1986 Pacific Symposium* (Washington, DC: National Defense University Press, 1987), p. 30-1.

Pacific Fleet, facilities at Cam Ranh Bay have quadrupled since US departure in 1975 and at any given day 20 to 30 Soviet combatants, 3 to 5 submarines, and a squadron of fighters, strike bombers, reconnaissance aircraft, and surface-to-air missiles are present at the installation.⁸⁸

Even more controversial to the Japanese is the Soviet buildup of military forces on the disputed northern territories. Airfields have been expanded on Etorofu to accommodate Soviet MiG-23's and Tokyo sources suspect Soviet SSC-1 GLCM's on the island. SSC-1 GLCM's on Etorofu would be capable of reaching Japanese bases on Hokkaido and the northern part of Honshu with its 450 mile range.

The Soviet Pacific Fleet also bears an ominous presence in the region. Two of the *Kiev* class aircraft carriers, the *Minsk* and the *Novorossiysk* are deployed in the Pacific. The Soviet Pacific Fleet also mans approximately half of the 300 submarines in the Soviet navy, 70 of which are nuclear powered.⁸⁹

Tokyo has little leverage in altering this situation. Although Tokyo is unable to reduce the Soviet military presence in East Asia, the ominous threat posed by these forces have served to heighten Tokyo's security consciousness and work to the benefit of Tokyo-Beijing-Washington relations. The Soviet military buildup in East Asia, Moscow's decision to invade Afghanistan in 1979, and incidents such as the Korean KAL flight 007 shoot-down on September 1983, have all served to reinforce the US-Japan security relationship. Although the Japanese had mixed views prior to these incidents, Soviet behavior has influenced many Japanese toward the American perception of the Soviet threat.⁹⁰

On December 9, 1987, a Soviet TU-16 Badger reconnaissance plane violated Japanese territorial airspace evoking a strong reaction by Air Self-Defense Force (ASDF) interceptors for which the Japanese press showed an unusual level of support. As the Soviet reconnaissance plane flew over Kadena, Okinawa, it was met by three ASDF F4EJ fighters which flew side by side with the TU-16 while another fighter covered the Soviet aircraft from above. After several minutes of signalling the intruder by radio and airframe signals to leave Japanese territory, the ASDF pilots fired several

⁸⁸Senate Hearings Before the Committee on Appropriations, Senate Hearing 100-258, Part I FY 88, 100th Congress 1st Session, p. 416-23.

⁸⁹*Kim*, p. 155.

⁹⁰Hiroshi Kimura, "The Soviet Military Buildup: Its Impact on Japan and its Aims," *The Soviet Far East Military Buildup* ed. by Robert H. Solomon and Masataka Kosaka (Dover: Auburn House, 1986), p. 108.

hundred warning shots. The Soviet plane then left the area and again violated Japanese airspace over Kagoshima prefecture. Although the incident evoked the first shots fired by ASDF pilots against a foreign plane, the reaction in several Japanese press reports revealed support for its Self-Defense Forces and greater suspicion for Soviet activities.⁹¹ In view of the KAL 007 incident and Soviet sensitivity in protecting its territorial airspace, the incident involving a Soviet reconnaissance bomber equipped with sophisticated navigational gear served to heighten Japanese suspicion of Soviet behavior and closer US-Japan security relations.

As a result of Soviet military increases in the Pacific region, even Beijing has endorsed the US-Japan Security Treaty and encouraged Tokyo to increase its military efforts in response to Soviet hegemonism. Although Japan has little hope of reducing the Soviet arsenal, Tokyo's economic might and foreign policy of controlling the flow of economic cooperation serve to regulate tensions between the two nations since Soviet desires for Japanese technology and capital remain high.

B. ECONOMIC FACTORS

In 1974, Japan reacted to the greatest economic challenge since its recovery from world war: the 1973 oil embargo. Manufacturing employment fell an annual average of 1.8 percent from 1974 to 1979 while industrial production also declined and failed to regain 1973 production levels until 1978. A reduction in crude oil supplies threatened several aspects of the economy, suggesting similar declines in domestic demand, research and development investments, gross capital formation and exports. In fact, performance in all of these areas did not decline as oil supplies were reduced. Although Japan reacted quickly to avoid economic disaster, the second oil crisis in 1979 convinced Japanese officials that a comprehensive security policy was necessary to protect Japanese economic, political and social interests. As a result, the concept of "Comprehensive Security" evolved within the framework of Article 9 of the Constitution; the first and second United States-Japan security treaties; creation of the Self-Defense Forces; resumption of normal relations with the USSR; enunciation of the three nuclear principles of no production, possession, or introduction of nuclear

⁹¹"Soviet Bomber Flew Over Kadena Air Base," *Ryukyu Shimpō*, December 10, 1987, p. 1, as found in *FBIS East Asia*, December 11, 1987, p. 2. "USSR Urged To Tell Truth On Airspace Violation," *The Yomiuri Shimbun*, December 12, 1987, p. 11. "Soviet Air Intrusion Viewed As 'Disturbing,'" *Asahi Shimbun*, December 11, 1987, p. 7.

weapons; normalization of relations with the PRC; and reaction to the oil shocks of 1973 and 1979.⁹²

Japan's perceptions and policies in global affairs were increasingly influenced by economic and technical issues impinging on its political and military spheres. In April 1979, after the second oil shock, rising pressure from the US and Europe over trade imbalances, strident criticism from the US due to its perception of Japan's "free ride" in security matters, and significant changes in the nature of Sino-Japanese relations, Prime Minister Masayoshi Ohira directed a task force to conduct a study on *comprehensive national security*. The results of the task force headed by Masamichi Inoki, former head of Japan's Defense Academy, were submitted to Acting Prime Minister Ito in July 1980, shortly after Ohira's death in office.

The report acknowledged the passing of *Pax Americana* and responsibilities Japan must accept as an economic leader and ally of the United States. Moreover, the report insisted that "with Japan accounting for 10 percent of the world's total GNP, it is vital that Japan accept commensurate international responsibilities and endeavor to protect the free political, economic, and social systems."⁹³

According to Inoki's report, Japan's security was not only a measure of its military power, "but also by economic, technological, food resource and social stability indexes, and additionally, by the level of mutual trust and friendship between countries concerned." Prosperity and stability were reemphasized as vital interests, while war, political instability and poverty were inimical to Japan's national goals. It was apparent that military power was least effective in combating these conditions, and as a result, Japan's economic strength in terms of its capital assets, scientific and technological developments, and economic cooperation became primary assets in national security affairs. The two oil shocks proved that purchasing power alone was not adequate to ensure uninterrupted supplies of strategic materials. Comprehensive security therefore relied heavily on other economic assets to enhance its international influence and national security posture. Capital and technology which emerged as a result of economic prosperity and research investments, became force multipliers bolstering Japan's strength in national security affairs. Exports assumed a

⁹²Barnett, p. 8-9.

⁹³Robert W. Barnett, *Beyond War: Japan's Concept of Comprehensive National Security* (Washington, DC: Pergamon-Brassey's International Defense Publishers, 1984), p. 3.

commanding position in the economy as a means of capital formation during economic crisis.

Economic policy also reacted to the shock of oil reductions by stressing the need to reduce its dependence on foreign oil and raw materials by transforming its economy from one based primarily on smokestack industries to an economy expanding into high technology. In 1979, MITI's *Visions for the 1980's* established such a policy, emphasizing the necessity for domestic creativity in technology and calling for greater research and development investments rather than depending on foreign sources for technical innovations.

As a result, Japan's heavy industries, particularly export-oriented heavy industries, have been on a decline. "Sunset" industries such as mining, shipbuilding, and petrochemicals have been shrinking as biotechnology, fiber optics, robotics and computer industries assume greater importance in Japan's economic growth. High-technology products have not only helped reduce energy consumption, but also enhanced Japan's ability to increase exports.

By raising exports and capital formation, Japan was able to avert catastrophic recession, however it also increased trade tensions with the United States and other trade partners. When the US trade deficit climbed to over \$106 billion in 1984, the world's leading democratic economies agreed in September 1985 to collectively take steps to reduce the value of US currency (see Appendix E). By lowering the dollar's value compared to the yen as agreed in the Plaza Accord,⁹⁴ (as well as other currencies, ie. the deutsche mark), US goods would become less expensive in yen terms and, theoretically, reverse the trend of US current accounts.

Although the yen:dollar exchange rate fell drastically after the agreement, the desired effect of shrinking the US trade deficit *vis a vis* Japan has not yet taken place. Instead, the Japanese surplus current account from the US increased to \$45.59 billion in 1985, \$7.04 billion more than the previous year. Meanwhile the yen's appreciation had other side effects in Japan.

The realigned currency accelerated an effect which had plagued many of the other industrialized nations: *hollowization* of domestic industries (*sangyo kudokan*). Hollowization occurs as capital and production leave the domestic economy for more

⁹⁴Finance ministers and central bank governors of the G-5 met on September 22, 1985 at the Plaza Hotel in New York to support noninflationary domestic demand and market-opening policies to ensure continued economic expansion. In pursuit of these goals, an agreement to realign currencies to current economic realities was reached, often referred to as the Plaza Accord.

profitable returns overseas. As Japanese exports became less competitive, industries relocated their production facilities to circumvent trade barriers, import quotas, and other import restrictions imposed by trading partners. The yen's rapid appreciation after September 1985 accelerated this effect as labor markets and investment instruments abroad became more attractive.⁹⁵

Hollowization manifested by the yen's rapid appreciation threatened Japan's concept of lifetime-employment as the problem of unemployment surfaced for the first time since postwar recovery. Heavy industries, the engines of Japan's economic rise, underwent exceptional strains as sectors such as shipbuilding and steel (the largest of the free world) jettisoned lifetime-employment to cut costs.⁹⁶

The free-market oriented Reagan Administration has maintained a monetary strategy as a broad solution for US trade disparities, while aggressively pursuing product-by-product negotiations with Japan covering areas such as citrus and beef trade barriers and microchip dumping in the United States and other countries. As the administration assumes this policy however, pressure for protectionist legislation continues to grow in Congress; claiming unfair trade practices, "Japan bashers" have been eager to retaliate with protectionist trade legislation. Japan has been criticized by free-market strategists and frustrated congressmen alike for not spurring its domestic demand in response to cheaper US imports realized by the newly realigned currency rates.

Cognizant of the disaster threatened by protectionist legislation, Prime Minister Nakasone was compelled to assuage US pressures, while addressing the domestic problems of hollowization. Prior to visiting Washington in April 1986, Nakasone directed an advisory committee (later called the Advisory Group on Economic Structure Adjustment for International Harmony) headed by former Bank of Japan Governor Maekawa Haruo, to present guidelines for a policy which would restructure Japan's economy from one based on exports for growth, to an economy driven primarily by domestic demand. To present the image of Japan as a responsible economic leader and to better address the concerns of deficit ridden nations, Nakasone himself ensured that the report reflected a positive response to the hostile international situation facing the Japanese economy.⁹⁷

⁹⁵Kishimoto Shigenobu, "On the Progressive Hollowing of Industry," *Japan Quarterly* 34 (April-June 1987): 2, p. 118-23.

⁹⁶"Steel: From A Reduced Role to a Bleaker Future," *FEER*, 18 December 1986, p. 54-5.

The Maekawa report established three economic goals for Japan: first to reduce the nation's current account surplus to a level consistent with "international harmony;" second, to enhance the quality of the nation's standard of living; and third, assume leadership by contributing to the international community in scientific, technological, cultural, and academic fields. According to the report, these goals should be founded in the spirit of free-markets, a global perspective, and continuous long-term efforts. Specific recommendations to achieve these goals were forwarded by the commission and are outlined below:

- ***Growth led by Domestic Demand.*** The report called for Japan to strive for economic growth led by domestic demand. The plan to restructure Japan's economy requires a reorientation of priorities to urban developments and increased private consumption. Particular attention is placed on increasing disposable income and reducing work hours. Tax reform should be implemented to eliminate incentives for saving and reduce taxes to provide greater disposable income. These recommendations are designed to improve the nation's standard of living while increasing domestic spending.
- ***Formation of A Harmonious Industrial Structure.*** The industrial sectors should be encouraged to pursue technological research and development and improve service sectors in support of leisure time. Direct overseas investments should be promoted, particularly in trade deficit nations. Foreign investments in Japan should be encouraged through exchanges of technology and cooperation with "third-country markets." Agricultural policies must be coordinated with industrialization. This should be done by importing non-basic farm products and selective production of agricultural goods in Japan. In the spirit of "free-market economy," Japan should make its agricultural market more accessible to other countries by lifting trade barriers.
- ***Improve Market Access and Encourage Import of Manufactured Goods.*** In coordination with overseas investments, Japan should open its markets to foreign manufactured goods in support of the free-market principle. In conjunction with this, anti-trust and counterfeit product laws should be strictly enforced. The report also encouraged economic cooperation and private sector technology transfer with developing countries as Japanese markets become more accessible.
- ***Stabilize and Sustain Appropriate Exchange Rates.*** International coordination of monetary policies should be sought to maintain stable current account levels. The report also recommended policies to support easy access to finances for growing industries.

⁹⁷Karel G. van Wolferen, "The Japan Problem," *Foreign Affairs*: 15 (Winter 1986/87) 2, p. 296-7.

- *Contribute to the World Economy Commensurate to International Status.* The Maekawa Report urged Japan to take a leadership position in the world economy by importing from less developed nations and offering technology and investment to developing countries. Japanese assistance to alleviate debt problems in these countries should be made in the form of lower interest loans and continued support of multilateral development banks.
- *Fiscal and Monetary Policy Management.* Finally, the report recommended formation of a fiscal policy to support economic and social balance as Japan's standard of living appreciates. Furthermore the report called for tax reforms to eliminate preferential tax treatment for personal savings.

Several aspects of this outline echo principles already established in Japan's economic policy. The significance of scientific technological research and development to the economy, promotion of direct overseas investment, contributions to developing countries and Japan's responsibilities to assume global economic leadership commensurate with its international status have all been iterated by Tokyo before. The outline however suggests that Japan must also assume radically new characteristics. Accelerating domestic demand by promoting private consumption and imposing savings disincentives are perhaps the most stunning proposal, however most pleasing to trade deficit nations.

Although the Maekawa guidelines were well received by most Americans as an initiative to correct trade imbalances, many Japanese leaders were quick to criticize the plan and denied that it was in fact a policy adopted by Tokyo. For the sake of international economic harmony, the report called for significant changes to Japan's social, economic, and political institutions which appear in many cases detrimental to Japan's economic well-being and security. By calling for the Japanese to consume more, while working and saving less, the report seemed to want the Japanese to make drastic cultural adjustments.

Although Tokyo was slow to commit itself to Maekawa recommendations, monetary conditions manifested by the yen's continued appreciation made exports difficult, forcing Tokyo to look inward for economic expansion. Stimulating its domestic economy however, has not brought full economic harmony with the United States. Economic tensions have gained momentum as US trade deficits grew and Washington's policymakers watch its strategically important high-tech and heavy industries wither under Japanese competition. Unlike Japan, several American industrial sectors are essential to US military superiority and therefore vital strategic assets. As America's iron, steel, and automobile industries have struggled and lost

ground under the weight of managerial ineptness and rising labor costs, foreign competition in these strategically important sectors compounded economic tensions with Japan. Current trends indicate continued competition as Japan's futuristic goals lay in high-tech industries.

The following sections of this chapter will discuss developments in terms of Japan's domestic demands, use of capital assets, exports, and research and development investments as comprehensive security incorporated these areas into its national security policies.

1. Domestic Demand

a. Demands for Energy

The global economy until November 1973 enjoyed and became accustomed to stable supplies of inexpensive crude petroleum. With the Arab imposed oil embargo, it was natural to expect a significant slow-down, if not recession of Japan's petroleum fueled industries and the overall economy. Although industrial production and manufacturing employment fell in the aftermath of the first oil shock, exports, capital formation and research and development efforts accelerated to maintain the momentum of Japan's economic growth. While crude oil imports declined at an annual average of 2.6 percent from 1973 to 1985 (an overall drop of 32.4 percent), Japanese attitudes toward conservation, alternate-source development, and import practices, even in the face of a global oil glut, have changed to improve its posture in energy security.

Since the Japanese fiscal year extends from April of the given year through March of the following year, the second half of FY 1973 (October 1973 through March 1974) underwent the peak of the oil crisis.⁹⁸ Although FY 73 experienced the most severe effects of the oil crisis, it was during this period that exports rapidly increased to lead overall economic growth. In FY 73, exports increased 16.9 percent over the previous year while GNP rose 21.8 percent, the largest increase since 1961. In the following fiscal year, exports experienced a record increase of 60.3 percent, while GNP grew 19.1 percent. Japan maintained a strong economy and improved its security posture by reducing risks inherent in foreign energy dependence. Although Japan's economy managed to avoid a severe recession, the second oil crisis marked the end of double digit economic growth, which actually proved beneficial as it enabled industries

⁹⁸Yuan-li Wu, *Japan's Search for Oil: A Case Study on Economic Nationalism and International Security* (Stanford, CA: Hoover Press, 1977), p. 28.

to overcome environmental difficulties manifested by the rapid growth years of the 1960's.

Japanese reactions to the oil shocks formed short, medium and long-term solutions to its energy problems which were later incorporated in its concept of comprehensive security. Conservation, diversification of foreign energy sources, stockpiling, and alternate source methods became principles of Japan's energy security policies. Immediate reaction to the reduction of oil supplies called for energy conservation measures to secure available resources. The intermediate response called for diversification of foreign sources to reduce the severity of dependence, since much of Japan's oil supplies came from politically unstable areas.

Prior to the 1973 oil shock, energy supplies depended heavily on oil from the Middle East; 80.7 percent of its imported oil came from the Middle East, while Saudi Arabia and Iran together supplied 54 percent of Japan's foreign oil supplies.⁹⁹ The oil crises of the 1970's and outbreak of the Iran-Iraq War formed an environment in which adequate oil supplies could no longer be assumed. As a result, Japan adopted a policy of diversifying energy imports, thereby reducing the risk of overdependence on a given region for oil supplies. Diversification expanded oil sources in Asia, specifically in Indonesia, the PRC, and Malaysia, reducing transportation costs and delivery time. By 1986, Asian sources for oil comprised 17.5 percent of Japan's total oil imports, with Indonesia as the largest supplier in the region (see Table 9).

In 1986, disagreement among members of the Organization of Petroleum Exporting Countries (OPEC), caused a breakdown in the once powerful cartel, spurring national competition for global oil markets. As a result, oil prices nearly halved from previous highs of over \$30 per barrel. Estimates of world oil reserves have continued to climb since 1986, and in January 1988, the *Oil and Gas Journal* estimated the year's global reserves up 27 percent from 1987. This increase represents an additional 190 billion barrels bringing the world total to 887.35 billion barrels. Based on current use of 20 billion annually, the increase represents enough new oil to satisfy global needs for an additional nine years.¹⁰⁰

Although current oil supplies appear to be abundant, the lessons of two oil crises have not been easily forgotten as Japan continues to adopt measures to ease the problems of foreign oil dependence. As oil supplies ballooned, Japan recognized its

⁹⁹Wu, p. 28.

¹⁰⁰James Tanner, "World Oil Reserves Rose 27% in Year as Producer Nations Boosted Estimates," *The Wall Street Journal*, February 9, 1988, p. 34.

TABLE 9
JAPAN'S CRUDE OIL IMPORTS BY AREA

(in millions of barrels and share of total)

	1983		1984		1985		1986	
	QTY	Share (%)	QTY	Share (%)	QTY	Share (%)	QTY	Share (%)
Mid East	922	70.5	947	70.1	878	70.4	842	68.8
Saudi Arabia	368	28.2	366	27.1	217	17.4	162	13.2
UAE	197	15.1	206	15.3	266	21.3	268	21.9
Iran	144	11.0	94	7.0	90	7.2	81	6.6
Iraq	3	0.2	5	0.4	26	2.1	59	4.8
Asia	237	18.1	248	13.4	216	17.3	214	17.5
North and South America	62	4.7	65	4.8	56	4.5	74	6.1
UK	0	0	0	0	0	0	1	0.1
Africa	16	1.2	9	0.7	16	1.3	7	0.6
Communist Bloc	69	5.3	81	6.0	82	6.6	83	6.8
TOTAL	1,307	100.0	1,350	100.0	1,247	100.0	1,223	100.0

Source: JEI: JEI Report No. 22B, June 12, 1987.

importance as an oil customer, reducing purchases from Saudi Arabia and Iran to 20 percent and turning to smaller countries such as Dubai, Abu Dhabi, Qatar, and non-OPEC Oman. Buying more than 50 percent of the oil exported by these countries, Japan enjoys an improved bargaining position since these suppliers lack the huge storage facilities available in larger oil exporting countries.¹⁰¹ By shifting its purchases to smaller producers, Japan has turned the tables of dependency by making these oil producers dependent on Japan, rather than Japan dependent on one oil supplier.

In addition to diversifying oil sources and improving its bargaining position, Japan has massed reserves in an oil stockpile equal to 140 days of domestic consumption. Japanese officials are hopeful that this stockpile is sufficient to withstand any shut-off of Mideast oil before the Gulf States are forced to continue oil exports for vital foreign currencies. In addition to crude oil stockpiles, the government in 1983, instituted a stockpiling program comprised of state, private and cooperative

¹⁰¹ Bernard Wysoki Jr., "How Japan Has Made its Oil Supplies Bow to its Energy Needs," *The Wall Street Journal* 2 June 1987, p. 1.

joint efforts to maintain a 12 day supply of rare, strategic industrial metals. By 1986, stockpiles of seven strategic industrial metals equaled 26.6 days of consumption, with hopes of reaching a 60 day stockpile in the near future. Although these developments indicate a concern for strategic metal supplies, it also represents Japan's lack of economic security prior to the two oil crises. In comparison, the US has maintained a stockpile of 94 metals equalling 3 years of consumption since 1939; France has maintained a 30 metal stockpile of 2 months consumption since 1973.¹⁰²

Long-term measures to address energy security include research efforts to diversify primary energy supplies. Plans to derive energy from alternate sources began in 1974 with the government sponsored "Sunshine Project." The project developed from the basic research stage and now operates experimental pilot plants. Placing efforts in five areas of energy development, the Sunshine Project aims to diversify energy sources by expanding its supplies from the sun; geothermal sources; coal liquification; hydrogen electrolysis; and a fifth area encompassing general studies in other systems such as wind power and power generation from marine temperature differences. The Sunshine Project is Japan's main effort in energy related research and development with an FY 1986 budget of 42,963 million yen.¹⁰³

Greater emphasis on nuclear energy also helped diversify Japan's primary energy supplies and reduce its dependence on foreign crude oil. Representing only .6 percent of the primary energy supplies in 1973, nuclear power currently provides 15 percent of primary energy supplies ranking Japan the third most nuclear powered nation after the US and Soviet Union.¹⁰⁴

The "Moonlight Project" is Japan's second largest energy research project, pursuing large-scale energy conservation technologies. It's current goals are to develop more efficient turbine engines, large scale batteries, and technologies related to heat storage.

In addition to government sponsored projects, Japan's demand for energy supplies have changed as a result of initiatives by private enterprises. Investments in energy conservation technologies and an industrial shift away from high-energy

¹⁰²"Stockpiling of Rare Metals by State and Private Circles," *Nihon Keizai Shimbun*, September 22, 1986.

¹⁰³April 1986, "FY 86 MITI Technology Related Policies," *Kogyo Gijusu*, as found in *FBIS, Japan Report, Science and Technology*, October 17, 1986, p 71.

¹⁰⁴CIA, *Handbook of Economic Statistics - 1986*, (Washington, DC: Government Printing, September 1986), p.143.

consumption (particularly in the material industries) toward knowledge-intensive processing industries made significant contributions to reducing oil imports. The post-oil crisis economy moved to incorporate technology in manufacturing techniques and while experiencing the birth of high-technology industries. The transformation of heavy-industries and emergence of high-tech sectors pushed for smaller, lighter, thinner and faster methods and products. New technologies melded the techniques of electrical and mechanical engineering by exploiting rapid advances in semiconductor technologies, while making industries more efficient and competitive in the global economy.¹⁰⁵

b. Demands for Food

Major oil price increases in 1973 and 1978 significantly effected the price of other commodities, however these increases had little effect on the volume of food imported by Japan. Japan's demand for foreign food supplies continued at a rate similar to private consumption despite higher food prices which followed rocketing oil prices. Although Japan's population growth is relatively low (an annual average of .92 percent from 1973 to 1985), the demand for foreign food supplies will be a problem of increasing concern. Japanese individual food consumption has continued to grow, placing greater emphasis on food imports and other means of providing nourishment in a land limited in agricultural resources.

Food security continues to be formed in the shadow of post-World War II memories and the "prison of hunger." Limitations of the agricultural terrain and dependence on foreign sources for food, particularly feed grains, constantly remind Japanese officials of its dilemma over security versus economy; while domestic production offers advantages in food security, the comparative advantage of importing cheaper food products is certainly more economic. The issue of food imports versus domestic production, however, is complicated by other factors. Policies in agricultural production and food imports have ostensibly favored food security rather than vigorously exercising the comparative advantage of food imports produced at lower costs. At the root of Japan's agricultural production and food import policies are political influences vital to the pro-American LDP rule.

The domestic political environment has played a unique role in manipulating Japan's food production and imports. Due to electoral zoning, the ruling LDP's support is founded in rural sectors where a portion of Japan's population has enjoyed concentrated electoral power. Although farmers comprise only 5 percent of

¹⁰⁵Uchino, p. 238.

Japan's population, because of weighted legislative apportionment and heavy turnout at the polls, farmers exercise 25 percent of the voting power. Additionally, farmers enjoy popular support by most Japanese who sincerely believe Japan food supplies are vulnerable.¹⁰⁶ The power wielded by farmers is especially manifested in agricultural subsidies and protectionist trade policies implemented by the LDP. Representing the agricultural sectors are powerful farm cooperatives that use "food security" as their banner for continued price subsidies and food import protection. In 1986, Japanese food prices were the highest in the world as the government paid over \$60 million in subsidies and trade barriers blocked imports of less expensive food products. Although Japan enjoys self-sufficiency in its national staple, the cost of this distinction is reflected in the price paid by Japanese consumers; rice in 1986 was eight times more expensive in Japan than in the US.¹⁰⁷

Japanese food consumption per individual has grown from a 1969-1971 average of 2705 calories per day, to 2858 calories per day for the period 1981 to 1983. A greater percentage of animal products in the overall diet contributed to a large portion of this increase, as urban Japanese are eating less rice every year. Since 1960, rice consumption has dropped 34 percent and is expected to fall an additional 12 percent by the end of the decade as the Japanese diet becomes more Western, heavy on meat, fats, and dairy products.¹⁰⁸ Although Japan's food consumption per individual is greater than most Asian diets, compared to other industrialized countries, the Japanese diet is much smaller (see Table 10).¹⁰⁹ Continued increases in animal products and overall individual food consumption is therefore likely as Japan maintains a prosperous economy. While estimates for beef imports in 1987 have been 214,000 tons, Japanese government experts predict that Japan's 122 million people will eat about 850,000 tons of beef in 1995, up about 57.4 percent from the 540,000 tons consumed in 1985.¹¹⁰

¹⁰⁶Damon Darlin, "Japan Firmly Resists US pressure On Rice," *The Wall Street Journal*, November 12, 1986, p. 39.

¹⁰⁷Damon Darlin, "Japanese Farmers Exploit Phobia On Food Scarcity to Curb Imports," *The Wall Street Journal*, June 2, 1987, p. 22.

¹⁰⁸Damon Darlin, "Powerful Bloc: Japanese Farmers Use Political Clout to Win Protection, Subsidies," *The Wall Street Journal*, December 4, 1986, p. 1.

¹⁰⁹Food and Agriculture Organization of the UN, *1985 FAO Production Yearbook: 39* (Rome, Italy: FAO Organization of the UN, 1986), p. 271-2.

¹¹⁰Damon Darlin, "US and Japan Are At Impass In Beef Quarrel," *The Wall Street Journal*, February 8, 1988, p. 23.

The vulnerabilities of Japan's food supplies became apparent after the oil crises of the seventies. Reduction of oil supplies from the Middle East raised food prices since oil was essential to domestic agricultural production for machines, insecticides, and fertilizers. Foreign food supplies were also vulnerable since Japan's purchasing power was subject to several factors, particularly world-wide food shortages caused by climatic conditions in food producing countries and competitive forces in the international market. Political influences in foreign food supplies became evident as the United States, Japan's largest food supplier, imposed economic sanctions against the Soviet Union in response to the latter's invasion of Afghanistan. Although Japan's relationship with the United States is vastly different from the Soviet Union, the reality of food supplies as a political weapon became evident to Japan. In contrast to foreign oil supplies however, the bulk of Japan's foreign food supplies come from politically stable areas, primarily the United States and Australia.

TABLE 10
CALORIES PER CAPITA PER DAY

Country	1964-66	1969-71	1974-76	1981-83
Japan (Total)	2628	2705	2782	2858
Vegetable Prod.	2296	2291	2276	2254
Animal Prod.	331	414	506	604
U.S. (Total)	3336	3442	3505	3647
Vegetable Prod.	1988	2077	2221	2367
Animal Prod.	1348	1366	1284	1280
FRG (Total)	3140	3225	3283	3431
Vegetable Prod.	2027	2054	2077	2139
Animal Prod.	1112	1172	1206	1292
ROK (Total)	2246	2427	2755	2804
Vegetable Prod.	2160	2314	2509	2531
Animal Prod.	85	113	186	273
PRC (Total)	2034	2088	2219	2602
Vegetable Prod.	1924	1975	2094	2424
Animal Prod.	110	112	125	178
USSR (Total)	3229	3302	3388	3426
Vegetable Prod.	2541	2534	2508	2543
Animal Prod.	689	768	880	883

Although the United States provides the crux of Japan's food imports, the battle against Japanese import quotas on agricultural products has been a symbolic

fight fueling trade tensions. During negotiations over orange and beef trade in March 1984, Japanese farm cooperatives successfully protected their trade as US negotiators acquiesced to Japanese insistence over import quotas. However, rising trade tensions manifested by a growing US trade deficit have forced US trade negotiators to strengthen their demands for the elimination of Japanese import quotas. In July 1986, after two years of negotiating for liberalizations in agricultural imports, the US requested the General Agreement on Trade and Tariff Organization (GATT) to form an impartial multinational panel to decide the legitimacy of Japanese import quotas in accordance with the international trade pact prohibiting quantitative import restrictions. Although Japanese officials assiduously negotiated for a compromise to preclude a GATT judgement, the Reagan Administration stood firm on its all or nothing position.

In December 1987, GATT issued its decision, ruling Japanese import quotas on 10 groups of processed agricultural commodities and food products in violation of international agreements. Prime Minister Takeshita in turn, blocked adoption of the report in part, saying Japan was willing to liberalize eight of the categories outlined by the GATT decision.

As expiration of the current beef and citrus agreement passed on March 31, 1988, and US trade retaliation is threatened as a result of Japan's failure to comply with the GATT decision, the conflict illustrates Tokyo's subservience to farm cooperatives and America's growing frustration with Japan's import barriers. Since liberalization of the 12 categories demanded by the US would add only \$250 million to the \$18 billion US agricultural exports to Japan,¹¹¹ resolution of this conflict has potential for small gains in the vein of US profits, and tremendous political upheaval in Japan if the LDP alienates its domestic support. There is however, tremendous US support by an international organization which Japan must consider. Since it is heavily dependent on international transactions, Japan must attempt to maintain some semblance of fair trade. Although Japan has been accused of being an "economic animal" eager to force exports on any available market and protective of its own, negative judgement by an international body such as GATT places much more pressure on Japan to reconsider specific trade policies, while somewhat reducing domestic pressure on LDP leaders.

¹¹¹JEI, *JEI Report No. 47B*, December 18, 1987, p. 9.

Japan's efforts to bolster its food supplies have turned to scientific research and development, specifically in bio-engineering technology. A relatively new field of research, bio-technology has not yet achieved the level of success as energy related research and development, however several advances have already been made to supplement Japan's food supplies. Among these bio-technology projects is an experiment concerning chromosome manipulation and hormone treatments to hybrid large salmon and tuna that return to their original hatcheries for harvest. Through bio-technology the Japanese hope to raise their overall level of domestic food supplies and food security for future generations.¹¹² However, as long as agricultural policies continue to subsidize domestic production and consumers tolerate inflated food prices, Japan will maintain its policy to ostensibly serve the interests of food security and erect trade barriers against foreign food supplies, contributing to US-Japan trade tensions.

c. Domestic Demand in US-Japan Relations

As economic tensions developed between the US and Japan, Americans focussed their criticism on Japanese trade barriers and blamed Japanese trade officials for intentionally placing restraints on Japanese domestic spending. With conclusion of the Plaza Accord to realign currency rates in September 1985, the yen's appreciation vis a vis other currencies made foreign goods less expensive for Japanese consumers and, as a result, more expensive for Japanese exports in overseas markets. Due to this change, the Japanese government's 1986 estimates of economic performance for the following year forecasted external demand to fall -0.5 percent while domestic demand was expected to rise 4.0 percent, resulting in a real GNP growth forecast of only 3.5 percent. Despite the currency realignment and Nakasone's "buy foreign" campaigns however, US exports to Japan failed to make significant increases which many US exporters and government officials anticipated.

The Plaza Accord had various unexpected effects on Japanese trade as several nations had different outcomes. Although the yen appreciated over 35 percent in the 12 month period from September 1985 to October 1986, US exports to Japan increased 7.2 only percent. The Pacific's Newly Industrialized Countries (NIC's) also made disappointing increases as exports to Japan increased only 9.7 percent for Korea, 5.6 percent for Singapore, and 15.1 percent for Hong Kong. Nervousness on the part of PRC officials over growing trade deficits and economic fragility resulted in a slowdown of its economic reforms, and lower trade statistics as exports to Japan

¹¹²Stephen Yoder, "Japan's Fishing Industry Putting Hopes On New Laboratory-Created 'Superfish,'" *The Wall Street Journal* February 11, 1987, p.30.

dropped 2.1 percent. As the yen continued to appreciate, the subsequent 12 months from September 1986 to August 1987 showed significant improvement in Asian exports to Japan, while US exports made even slower gains. As the yen dropped an additional 5.2 percent to 146 yen to the dollar, Korea with its currency pegged to the US, improved its exports to Japan by over 50 percent. Although smaller in volume compared to Korea, Hong Kong's exports to Japan climbed 52.2 percent, Singapore 14.4 percent and the PRC, 7.2 percent (see Table 12).¹¹³ While currency realignment eventually improved Japan's demand for foreign goods, to the disappointment of US trade officials and exporters, the most drastic increases in Japanese demand came from neighboring Asian nations.

TABLE 12
US, KOREA, SINGAPORE, HONG KONG, AND PRC EXPORTS TO
JAPAN BEFORE AND AFTER THE PLAZA ACCORD: SEPTEMBER
1985

	(millions of dollars and percent change)				
	US	Korea	Singapore	Hong Kong	PRC
Sep '84-Aug '85	26,461	4,196	1,461	794	6,189
Sep '85-Aug '86	28,354	4,603	1,543	914	6,058
Change	1,893	407	82	120	-131
% Change	7.2	9.7	5.6	15.1	-2.1
Sep '86-Aug '87	29,710	6,948	1,765	1,391	6,495
Change	1,356	2,345	222	477	437
% Change	4.8	50.9	14.4	52.2	7.2

Source: IMF, *Direction of Trade Statistics* (Monthly), applicable issues.

A fundamental aspect of Japan's growing imports is the percentage of manufactured goods being bought by the Japanese, up 33.8 percent in 1987. In contrast to earlier import patterns, the rising yen has made manufactured products more attractive. Although several European nations and the NIC's have been able to take advantage of this newly formed Japanese market, US manufacturers have had less success in selling their goods to Japan. European exports of manufactured goods have increased 26.7 percent in 1987 with luxury goods responsible for much of this increase. While the European Community took advantage of Japanese newly found affluence,

¹¹³ Figures calculated from monthly trade statistics from applicable monthly publications of IMF, *Direction of Trade Statistics* (Washington, DC: IMF).

the NIC's, using the momentum of Japanese production displacement overseas, have increased their exports to Japan in areas of cheap consumer goods such as digital watches. Exports of manufactured goods from South Korea, Taiwan, Hong Kong, Singapore, Thailand, and Malaysia rose 61.1 percent in 1987.

In contrast to these sharp increases in exports, US exports of manufactured goods to Japan have appealed to a smaller market, and therefore have not shown similar increases. While manufactured goods comprised 78 percent of total US exports in 1986, these goods constituted only 57 percent of total US exports to Japan, the remainder of which was primarily commodities such as coal, lumber, and agricultural goods. US exports of manufactured goods however, did increase 18.1 percent in 1987 and the bulk of this demand came from high-tech factories requiring precision machines. According to a study conducted by Japan's External Trade Organization (JETRO), American manufactures enjoy increases in industrial chemicals, tractors, telecommunications equipment, and medical equipment.¹¹⁴ Therefore, due to the competition of lower priced consumer goods from other countries exporting to Japan, US exports have not realized the gains suggested by currency realignments.

The Maekawa Advisory Group hoped to relieve global trade tensions against Japan while raising the Japanese standard of living by increasing domestic consumption. In addition to a strengthening yen, the Maekawa proposal aimed to give Japanese consumers additional incentives to spend rather than maintain their traditionally high savings rates. By abolishing the *muruyu* (system for not taxing savings), and reducing work hours, the Maekawa Advisory Group hoped to achieve its goal of improving the standard of living for Japanese while better integrating its economy with the global community under more harmonious conditions. Additionally, to address the problem of industrial hollowization, the advisory group encouraged a domestic transition to high-technology-oriented industries and sectors better able to meet domestic demands as labor-intensive and export oriented industries moved overseas to take advantage of cheaper labor costs and manufacturing facilities in the countries where export markets have already been established. According to Maekawa Haruo, the most painful aspect of monetary realignment and restructuring for Japan, will be during the first five years of industrial modifications, since high unemployment will result as laborers are required to develop new skills. In a society of low labor

¹¹⁴Daniel Sneider, "Japan's Markets Opening-Especially for US Competitors," *The Christian Science Monitor*, April 15, 1988, p. 9-10.

mobility, the Japanese will be required to endure exceptional social and economic hardships.¹¹⁵

With the slowdown of export growth manifested by the yen's appreciation, the Japanese government took actions to stimulate domestic demand. Following the G-7 meeting to stabilize currency rates conducted in Louve, France, Japan reduced its discount rate to a postwar low of 2.5 percent in February 1987. By reducing the discount rate, other interests rates soon followed, assuring Japanese enterprises investment capital while giving a boost to the overall economic expansion. In addition to this initiative, the LDP announced its plan to stimulate domestic demand on April 7, 1987.¹¹⁶ The plan called for a supplementary fiscal stimulus package focussed on public works projects and stepped up housing construction. Later passed by the Diet, the package established a 6 trillion yen (\$48 billion at 125 yen:\$1.00) supplementary budget for public works and also reduced personal income taxes by 1.5 trillion yen (\$12 billion).

Following these initiatives, housing starts increased 23 percent in 1987. Since this has been a dormant sector of the economy, government officials believe this is only a temporary surge and therefore project 1988 construction to level off to a 1.9 percent increase. The overall increase in domestic demand however, must be attributed to a combination of government initiatives and the global economic environment which triggered growth in Japan's largest area of domestic demand: private consumption. Occupying over 50 percent of Japan's economy, consumer spending climbed due to the drop in interest rates and income taxes, and the yen's appreciation (see Table 11).

Similar to initiatives implemented by Ikeda Hayato in 1957, the Japanese government of 1987 injected funds into its economy as currency realignments made export growth difficult. By forming an environment conducive to spending, Japan's economy realized continued growth through greater domestic demand, reducing pressure from the US and other trade deficit nations. As the US Federal Reserve Board Chairman, Alan Greenspan praised Japanese policies before the congressional Joint Economic Committee on March 15, 1988 stating: "One can scarcely argue they haven't done an adequate job of stimulating the economy."¹¹⁷ The increase in domestic

¹¹⁵"Structural Adjustment and Employment Problem.; Urges Improvement of Livelihood Centered Around Internal Demand," *Nihon Keizai Shimbun*, January 5, 1987, as found in *American Embassy Translations*, Tokyo, Japan.

¹¹⁶"LDP Outlines New Economic Bolster Package," *Kyodo*, April 7, 1987, as found in *FBIS, East Asia*, April 7, 1987, p. C-5.

demand, elimination of tax credits for personal savings, and government spending, raise questions with regard to the finance of deficit spending. The high level of Japanese savings has helped finance deficit spending by the US and Japanese governments, American consumers and Japanese companies both in Japan and overseas. As the Japanese are encouraged to save less and spend more, these institutions will be required to search for other capital sources or change their spending and investment methods. In addition to the problem of debt financing, the abundance of Japanese capital realized through high savings rates, occupies a significant role in enhancing comprehensive security.

TABLE 11
JAPAN'S PROJECTED GROSS NATIONAL PRODUCT 1984-1988

	(percent change)				
	1984*	1985*	1986**	1987** ^{Projected}	1988
Real GNP	5.1	4.4	2.6	3.7	3.8
Consumer Spend.	2.6	2.8	3.6	3.6	3.8
Construction	0.5	2.9	10.9	16.5	1.9
Private Cap. Spend.	11.5	13.2	4.5	7.1	9.8
Government Spend.	0.8	-1.7	7.8	3.5	1.7

* Actual ** Estimate

Source: Economic Planning Agency as found in JEI: JEI Report 8A, February 26, 1988.

2. Capital

As Japan overcame the economic difficulties precipitated by the energy crises, the economy continued to grow, albeit a slower rate than experienced during the 1960's. Steady growth continued the prosperous trend as capital formation grew and Japan expanded its economic influence overseas as a financial creditor. The Japanese savings rate maintained high levels providing resources for capital formation. By increasing the size of its capital stock, Japan not only enhanced its domestic productive capacity, but also its ability to influence overseas areas via development assistance, and both direct and indirect overseas investments. Along with its increasing contributions

¹¹⁷Alan Murray, "Fed Chairman Warns Congress on Rapid Growth," *The Wall Street Journal*, March 16, 1988, p. 2.

of Official Development Assistance (ODA), Japan began placing much of its direct foreign investments in developing countries. During the 1980's however, Japanese capital investments began to increasingly find their way to developed countries, particularly the United States. In 1985 Japan became the world's largest creditor nation, a status which not only holds economic prestige, but also reveals the magnitude of its economic influence in overall international affairs. Achievements of this status manifests Japan's commitment to its concept of *comprehensive security*.

a. Domestic Capital

For the reasons outlined in the previous chapter, Japan continued to maintain saving rates much higher than other developed countries through the 1970's and 80's. While the OECD average for gross savings as a percentage of GDP was 21.4 percent from 1975 to 1985, Japan's average during the same period was 31.4. The United States and West Germany averaged only 18.5 and 21.6 percent respectively. Japanese households were the primary source for savings as an average 18.9 percent of Japanese disposable income from 1975 to 1985 was committed to savings. Again, the US and West Germany trailed Japan as Americans saved an average of only 6.4 percent and West Germans 12.7 percent.¹¹⁸

This section examines Japan's role as an international supplier of capital assets and how capital investments contribute to Japan's national security. Japan continued to develop its concept of economic cooperation and aid in the 1960's and 70's to nurture overseas markets for exports and ensure good relations with its resource-bearing neighbors in Southeast Asia. Both private flows and government ODA funds have been utilized toward this end. While maintaining this strategy toward developing countries, particularly the Association of Southeast Asian Nations (ASEAN), Japan has expanded its influence through direct and indirect foreign investments to developed countries.

b. Economic Assistance and Aid

As a result of the oil shocks, Japan's economic aid program matured to assume a greater role in international affairs. The reduction of oil supplies from the Middle East threatened vital interests in Japan while manifesting the vulnerabilities of global interdependence. Economic aid expanded to address the vulnerabilities of interdependence in the politically unstable Middle East.

¹¹⁸JEI, *JEI Report 17A*, May 1, 1987, p. 5.

Until 1980, Japan's economic assistance and aid programs were implemented for economic goals, tying aid projects with Japanese exports and natural resource acquisitions. With the advent of *comprehensive security* however strength in areas other than military might took on greater importance. With science, technology and human resources, economic strength became a vital force in securing political and economic interests. Even before Japan officially embraced the concept of *comprehensive security* in 1980, economic assistance and aid were implemented to address security issues as well as economic goals and humanitarian needs.

Since as early as 1973, Tokyo's aid flows began to reflect a new philosophy rooted in its growing economic interdependence, economic prosperity, technical achievements, and position as a Western ally. Although the 1973 oil shock stimulated a change in aid philosophy evident in other areas such as disbursement, change in the quantity of ODA contributions are not obvious until 1978.

While Japan's ODA during the 1960's and early seventies focussed on regional economic links established by reparation arrangements, the 1973 oil crisis made Japan's far reaching global interdependence evident to all Japanese. Tokyo's perspective of disbursing aid took on greater importance as relations with the Middle East and other areas became very special.¹¹⁹ Shaken by the 1973 embargo, aid became instrumental in "*resource diplomacy*" which sought new sources of energy and mineral resources, while bolstering relations with established suppliers.¹²⁰ Although Asian countries, particularly members of ASEAN, continued to receive the crux of Japanese aid after the oil embargo, Tokyo recognized the need to establish better relations with areas beyond Asia.

In addition to *resource diplomacy*, to protect Japanese national interests, Japan's position as a wealthy partner in Western security interests also influenced the framework for Japan's economic aid policy. Lacking capital, managerial skills, and technical resources, Less Developed Countries (LDC's) typically struggle with political and economic instability leaving these nations vulnerable to communist influence. Seen as an alternative to defense spending, many Japanese prefer foreign aid expenditures, as it better reflects the image of Japan as a world leader for peace.

¹¹⁹Rix, p. 234.

¹²⁰William L. Brooks and Robert M. Orr Jr., "Japan's Economic Assistance," *Asian Survey*: 25 (Mar 1985) 3, p. 326.

Characteristic of this sentiment, Takashi Hosomi, chairman of the Overseas Economic Cooperative Fund (Japan's largest aid agency) has stated:

Japan is determined not to have strong military forces ... as a rather successful industrial country, we should contribute to the total peace of the world by concentrating on this development problem ... Economic stability and prosperity are at the core of peace.¹²¹

By merging economic diplomacy and security concerns to crucial regions, Tokyo hopes to maintain a level of political, social and economic resiliency to avoid conditions leading to internal disorder, disputes, or external intervention.¹²²

Under these conditions, Prime Minister Fukuda Takeo announced Japan would accept a greater role in providing assistance which began a series of aid-doubling programs to developing countries. In 1977, Fukuda promised to increase contributions by more than doubling Japan's ODA aid in the following five years, explaining a significant increase in 1977. In a May 1978 meeting with President Carter, Fukuda pledged that Japan would accelerate its effort to double foreign aid by achieving this goal in three to four years.¹²³ Japan easily achieved its goal, increasing ODA contributions from \$1.4 billion in 1977 to an aggregate \$3.3 billion in 1980 (see Figure 4.1).

Since 1980, Japan has undergone two additional aid-doubling programs. In 1981 Prime Minister Suzuki Zenko announced a goal to double aid contributions once again by 1985. However, plagued by a depreciating yen and fiscal austerity inherited by a domestic economic slow-down, Japan's ODA contributions reached an aggregate of \$18.1 billion in 1985, \$2.3 billion short of its intended goal. Despite this setback, a Third Medium Term Target was established in September 1985 to disburse more than \$40 billion over the 1986-92 period and double the amount of ODA in the final year over the sum spent in 1985. Due to the yen's appreciation since 1985, Japan has rolled back its goal to double 1985's contribution to 1990. Additionally, spending plans for FY 1988 call for 1.35 trillion yen in ODA, or \$10.8 billion with the dollar at 125 yen, surpassing the US FY 88 aid appropriations by approximately 20 percent and becoming the largest donor in budgetary terms. Despite these figures, Japan's aid spending is often criticized for its contributions compared to GNP and the quality of

¹²¹"Japan Fights Complaints About its Foreign Aid Performance," *The Christian Science Monitor*, March 18, 1987, p. 12.

¹²²Brooks and Orr, p. 326.

¹²³"Japan-America: We'll Try To Do Better," *The Economist* (May 6, 1978).

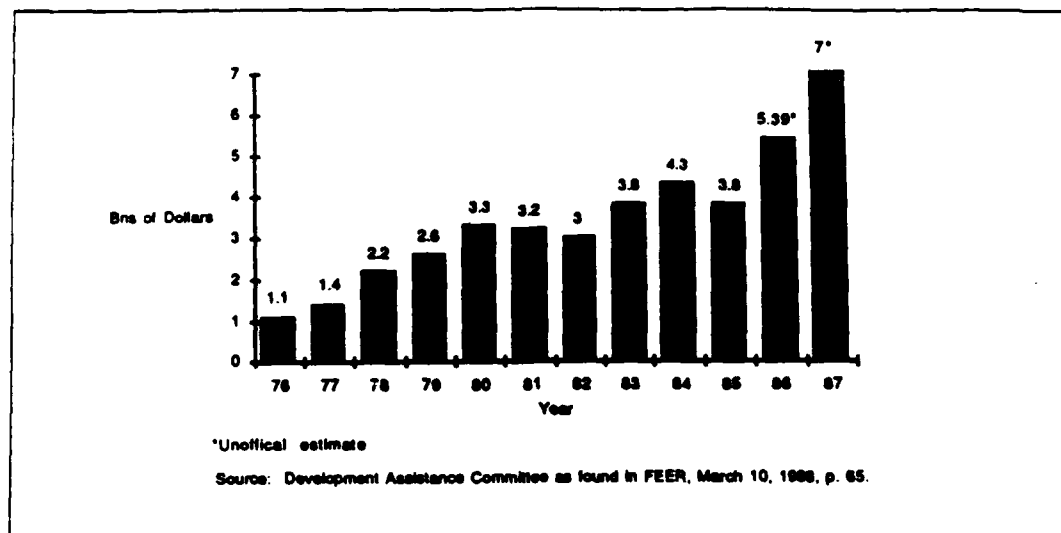


Figure 4.1 Japan's ODA Contributions 1976-1987.

its aid. As a percentage of GNP, a statistic used to measure a country's ability to contribute, Japan ranks low among other members of the Development Assistance Committee (DAC). In 1986 when it contributed \$5.39 billion, Japan ranked 14th in the field of 18 donors, at .29 percent. The group's average was .35 percent with the US's .23 percent of GNP ranking last. Moreover, compared to other DAC members, Japan gives away less and lends more to developing countries with grants comprising 78 percent of its development assistance; fourteen members, including the US had grants exceeding 96 percent. A reason for Japan's lower percentage of grants is that a vast majority (over 65 percent, see Figure 4.2) of its aid goes to middle-income countries in Asia, primarily ASEAN, which, in many areas, do not qualify for grant assistance. Should these "Asian developing countries continue to outperform the rest of the developing world, the Asian share of assistance could fall to 60 percent before long and Africa's could rise to 20 percent, thereby raising the grant element." In addition to these problem areas, monetary conditions have made Japanese loans expensive as the yen continues to appreciate and currencies of several developing countries decline in appreciation.¹²⁴

As Japan adopted *comprehensive security* in 1980, economic aid assumed a more strategic role in global relations as aid flows were approved to areas of the Western alliance bordering conflict areas. Among nations receiving aid under this

¹²⁴Nigel Holloway, "Problems of Plenty," *FEER*, March 10, 1988, p. 64-6.

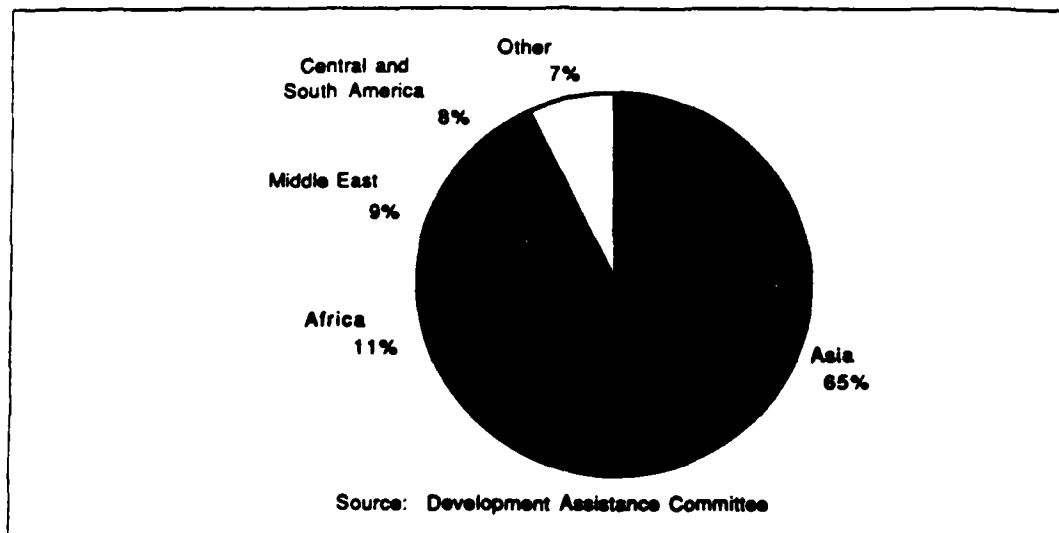


Figure 4.2 Japan's ODA Distribution-1986.

category in 1980 were Turkey, Pakistan and Thailand. Since 1980, the number of countries receiving aid from Japan for their strategic importance has grown to include Egypt, Jamaica, the Republic of Korea, Oman, Sudan, Zimbabwe, North Yemen, Kenya, the PRC and the Philippines. In addition to expanding aid flows for security reasons, Japan has also withheld aid as a diplomatic sanction, most notably to Vietnam.¹²⁵

In addition to using capital as a foreign policy instrument, Japan's desire to fulfill a greater international role due to its economic wealth is a current theme in its national interest. Japan hopes to assume international responsibilities commensurate to its economic strength and enhance its image as a global leader through ODA contributions toward the advancement of 'basic human needs' in developing countries. Through these contributions, Japan hopes to help bridge the gap in North-South social and economic needs while gaining international prestige as an international leader, working toward human development and peace.

Prime Minister Suzuki formally introduced the human needs dimension to aid contribution in a January 1981 speech in Bangkok. There, he outlined four sectors to address human needs development:

¹²⁵JEI, *JEI Report 39A*, October 24, 1986, p.7.

1. Rural and agricultural development which included infrastructure projects such as irrigation, drainage, road, electrification and communications improvements.
2. Development of new and renewable energy programs.
3. Human resource development which included education to develop skills and greater application of technical assistance.
4. Promotion of small and medium sized businesses to spur overall economic growth and development.

Although resource diplomacy and security continued to form the backbone of Japan's aid policies, contributions to areas for 'basic need' reasons also flowed from Japan. Bangladesh, an area of extreme poverty and little political or economic interest to Japan, ranked seventh in 1985 among countries receiving aid from Japan with \$121 million in bilateral assistance.

Perhaps the best example of Japan's use of aid and other economic assets toward security goals however, is the current plan set forth by Tokyo to address tension in the Persian Gulf. With the attack on the *USS Stark* in May 1987, Iran's initiative to utilize shore-based anti-ship missiles, and the US decision to deploy forces to protect oil tankers navigating the Gulf, Japan was afforded the opportunity to contribute as a responsible international leader. As a major beneficiary of maintaining free access to the Gulf, Japan was eager to move, and the US (much less dependent on oil from the region), was anxious to see Japanese participation.

In light of constitutional restrictions regarding military deployment, Nakasone hoped to utilize the nation's economic strength and Tokyo's diplomatic access to both Tehran and Baghdad in hopes of maintaining constant flows of resources through the Gulf and an eventual settlement between the nations at war. On September 21, 1987, Nakasone met with Reagan to outline Japan's contribution to the cost of maintaining free navigation in the Gulf by proposing assistance in the following areas:

- Installation of a precision navigation system to help ships' captains to more accurately plot courses through waters swept of mines and other hazards with greater confidence. The British made Decca precision navigation system consists of 20 to 30 stations to be located among the member of the Gulf Cooperation Council (Saudi Arabia, Kuwait, Oman, Bahrain, Qatar and the United Arab Emirates). The United States has already begun discussing such a system with council members and Japan's contribution of equipment and funds are planned to total \$10 million.
- Tokyo officials have pledged \$10 million toward peace efforts by the United Nations.

- Economic aid contributions are planned in an effort to bring relief to nations of the region and with hopes of bringing Iran and Iraq to a negotiated settlement. Export-Import Bank loans of \$200 million are already committed to Oman, and \$300 million in credits and Export-Import loans to Jordan. Although specific aid proposals have not yet been established for either Iran or Iran, Tokyo has promised to contribute to the reconstruction effort.
- To offset US expenses committed to the Gulf effort, Japan intends to increase financial support of US military bases in Japan. An increase of 6.2 percent has already been planned, however Tokyo hopes to settle arrangements with the US for additional increases in time for the FY 1988 budget.¹²⁶

Japanese officials have been negotiating with nations in the Gulf, particularly members of the Gulf Cooperation Council since October 1987 to establish the Decca navigational system. However, Iran has opposed the proposal and since the UAE and Qatar have close relations with Iran, they have withheld cooperation.¹²⁷ Two Japanese oil tankers were hit by Iranian fire only a few days after the proposals were discussed between Japanese and Iranian officials in Tehran. While Nakasone's initiatives demonstrate Japan's efforts of using capital and diplomatic assets toward its comprehensive security policy, setbacks such as the UAE and Qatar reluctance to cooperate and attacks on Japanese oil tankers reflect the difficulty with which Japan hopes to seize international responsibility through such a policy.

c. US-Japan Capital Flows

The Carter and Reagan administrations formed contrasting economic environments which greatly influenced foreign investments in the United States. While Japanese investments during the Carter years had relatively little effect on US-Japan relations, windfall yen investments during the Reagan administration have caused nervousness among Americans as competition for private and government securities developed. Although Japanese investments in government bonds are largely responsible for funding the government's deficit spending, government officials and private corporations became uneasy as Japanese takeovers of US corporations appeared as foreign control of strategically important industries.

The US economy during the Carter years suffered the deepest recession since World War II making US investments relatively unattractive to foreign capital compared to later years. The "misery index," an index of unemployment plus inflation

¹²⁶JEI, *JEI Report No. 39B*, October 6, 1987, p. 2.

¹²⁷"Proposal on Navigational System for Persian Gulf," December 8, 1987, *Yomiuri Shimbun*, as found in *FBIS East Asia*, December 10, 1987, p.2.

indexes, reached a peak of 20.6 percent at the end of the Carter years, compared to 11 percent in Reagan's seventh year in office.¹²⁸

Since November 1982, the United States has experienced the largest peacetime expansion in US history by taming inflation and reducing the nation's unemployment. While lower inflation and unemployment brought protracted economic growth, this process brought unprecedented deficits in two accounts: the national budget and current accounts of traded goods and services. While the government and consumers spent more than they could actually afford, Japan's net flow of long term capital investments to the US have increased over the years, providing much of the balance of US over-consumption (see Table 13). In 1986, Japan poured \$65.7 billion into the United States, almost half of Japan's \$131.5 billion total overseas investment for the year. The figure is also significant compared to the bilateral current account since Japanese investments in the United States actually exceeded the \$53.8 billion US trade deficit of that year.

TABLE 13
JAPAN'S NET LONG TERM CAPITAL INVESTMENTS TO THE U.S.

	(in millions of dollars)				
	1982	1983	1984	1985	1986
Long-Term Capital	-1,700	-5,541	-14,814	-33,163	-65,700
Direct Invests.	-1,423	-1,041	-3,180	-2,043	-7,774
Trade Credits	-788	-190	-195	-587	-334
Loans	-243	-329	-477	-716	-690
Securities	+1,248	-3,943	-10,591	-29,874	-56,944
Other	-494	-38	-371	+57	-908

Note: Credits (+) indicate net inflows and debits (-) indicate net outflows.
Source: JEI, US-Japan Economic Relations Yearbook 1984-1985
(Washington, DC: JEI, 1986), p. 135; and JEI, JEI Report No. 29B, July
31, 1987, p. 3-6, for 1986 statistics.

To fight inflation, the Federal Reserve and subsequently private banks tightened credit in the late 1970's, while the government generated budget deficits as a result of tax cuts and an inability to reduce government spending. Although the 1980

¹²⁸Alan Murray and Ellen Hume, "Reagan's Fiscal Policy May Blight the Future Despite Current Gains," *The Wall Street Journal*, 17 Nov 87, p.1.

debt was large at \$737.7 billion, the debt grew to over \$1.813 trillion in 1986.¹²⁹ In 1980, repayment of the national debt represented 9 percent of the total budget, growing to 14 percent in 1987.¹³⁰ As interest rates climbed, drawing investments from various foreign sources, so did the dollar, making US exports more expensive overseas and foreign goods cheaper in the US. As a result, US trade deficits grew. By 1987, the US trade deficit reached \$171 billion, over four times the 1980 deficit of \$36.2 billion.¹³¹

As already noted, the G-5 nations agreed in 1985 to collectively reduce the dollar's value in currency markets, however the rising trend in US trade and budget deficits have continued. Moreover, overseas investments by Japan have grown making Japan the largest creditor nation in the world, a distinction once held by the US, now the world's largest deficit nation.¹³² As US consumers continued to purchase foreign goods and tried to maintain a standard of living at higher costs, personal savings rates dropped from 7.1 percent in 1980 to 3.9 in 1986. The combination of high interest rates, rising government deficits, and lower domestic savings created an environment attractive to foreign investors. As the US economy became addicted to foreign capital, Japanese direct investments canvassed the nation.

Overall Japanese direct foreign investments have doubled every four years since March 1982 with the US as its prime location. In 1986, Japanese investment in the US reached \$10.2 billion with approximately \$2.1 billion for the construction or acquisition of US production and assembly facilities, primarily by export-oriented corporations. Approximately \$1 billion of this investment was committed to industrial and consumer electronics production facilities with the remaining \$1.1 billion to automotive equipment, chemicals and metals production plants. Japan's service industries also took advantage of the stronger yen as these corporations invested in American banking, finance, and insurance sectors with approximately \$2 billion. The most attractive investment in America for 1986 however, was real estate as Japanese investors poured \$3.6 billion into US land and structures.¹³³

¹²⁹IMF, *International Financial Statistics Yearbook-1987*, p. 701.

¹³⁰"Reagan Plan For '89 is Less Confrontational, Seeks Spending Rise For Space, AIDS Research," *The Wall Street Journal*, February 19, 1988, p. 6.

¹³¹JEI, *JEI Report No. 34A*, September 4, 1987, p. 34.

¹³²David Hale, "Protectionist Pressures: US as Debtor, A Threat to World Trade," *The New York Times*, September 22, 1985, p. 2F.

¹³³JEI, *JEI Report No. 25B*, July 2, 1987, p. 8-12.

Yen indirect investments in the US were welcomed as Japan invested in securities such as government and private bonds which paid for the bulk of government and private deficit-spending. As the US became more attractive to Japanese investors however, US tensions rose as Japanese control over US industries grew with yen direct investments.

In early 1987 one of Japan's largest and most progressive electronics corporations, Fujitsu Ltd., submitted for US approval plans to buy 80 percent of the US based Fairchild Semiconductor Corporation. The company that had developed the "planar process" for manufacturing integrated circuits in the fifties, was owned by Schlumberger, a New York-based oil and electronics corporations controlled by French interests. Fujitsu hoped to establish a production base and improve semiconductor sales in the US, an industry that US Secretary of Commerce Malcolm Baldrige feared Japan already dominated through unfair trade practices. While Baldrige opposed the merger based on trade friction, he was later joined by Secretary of Defense Weinberger who opposed the merger for reasons based on national security. Since Fairchild was a major supplier of semiconductor products to the Department of Defense, Weinberger viewed Japanese control over the corporation as a threat to national security.¹³⁴

Rising cabinet pressure against the acquisition caused Fujitsu to withdraw its \$200 million plan for Fairchild in March 1987, however the incident contributed to economic tensions between the two nations. Explanations as to why the acquisition threatened US security centered on the following points:

- 1 It will result in leaving part of the semi-conductor industry, which is supporting the modernization of weapons, to foreign capital.
- 2 The greater part of the semi-conductor manufacturers in the US are full-time petty and small enterprises, and cases of Japanese enterprises' taking over US semi-conductor corporations may occur, one after another, touched off by the Fairchild acquisition.
- 3 There is a possibility of American computer manufacturers' raising suddenly the level of their reliance on Japanese or Japanese-affiliated semi-conductor manufacturers.¹³⁵

¹³⁴Brenton R. Schlender, "Fujitsu Drops Plans to Acquire US Chip Maker, *The Wall Street Journal*, Mar 17, 1987, p. 3.

¹³⁵"Investment Protectionism' in US; Fujitsu Gives Up Buying Up Fairchild; Abuse of 'Security' Feared; Big Barrier to Japanese Enterprises," *Nihon Keizai Shimbun*, 19 March 1987, p. 3, as found in *American Embassy Translations*, Tokyo, Japan.

Although national security is clearly a just reason for opposing foreign acquisition of a strategically sensitive industry, (in light of the "national-defense clause" which provides for such protection)¹³⁶ Japanese officials were stunned that US cabinet members opposed Japanese acquisitions of a US based corporation already under foreign control, creating Japanese fear of "investment protectionism" in the United States.

Although many US policymakers have taken a defensive stance against the rising level of Japanese investments in America as in Fujitsu's attempted purchase of Fairchild, there are several advantages to yen investments which make such apprehension unwarranted. Japan is an allied nation with strong economic and security ties with the United States. Although the issue of equal burden sharing is continually raised, the US and Japan share common security interests as allies, manifested by the MST. Moreover, both nations seek security gains in the economic arena through joint Strategic Defense Initiative (SDI) development. As both economies continue to develop, the growth of multinational corporations and economic transactions are inevitable and the US and Japanese economies will become even stronger by the interdependence realized through trade, overseas investment and technology transfers. As already noted, yen investments have helped the US economy continue its current economic expansion by providing investment capital to US enterprises while also financing private and government deficit spending through indirect investments such as purchases of government and corporate bonds as well as direct investments through corporate stocks and real estate. Finally, Japanese direct investments which affords foreign control of companies located in the US are still subject to central and local government laws and directives, which should assure "investment protectionists" of a US stake in foreign controlled companies. Protection against foreign or domestic attempts to monopolize or overwhelm specific industries therefore, already exists in present anti-trust laws which overseas investors must adhere. In the most severe situations, should Japanese security or economic relations with the US make drastic changes, the US maintains the ability to freeze foreign assets as exercised recently against Iran and Panama. Although conditions forcing the US to freeze Japanese assets would indeed reflect grim US-Japan relations, the fact that measures to protect national interests from predatory foreign investments are available, discounts the argument for investment protectionist policies against Japan.

¹³⁶1948 National Security Act, Section 232 of the 1962 Trade Expansion Act, and the 1977 International Economic Emergency Economic Authority Act.

Despite Fujitsu's setback, Japanese investments in the US have grown, giving Japan a huge stake in the welfare of the American economy, while supporting US economic growth. As the US budget deficit climbed to \$1.8 trillion in 1987, the flow of Japanese capital into US Treasury bonds and corporate securities has kept US interest rates low, sustaining economic expansion. Due to the level of these investments coupled with nearly 40 percent of its export market at stake in the US, Japan is committed to sustaining the value of its dollar investments and avoiding a serious US recession that would decrease the value of its investments as well as its ability to export goods to the US market place. The analogy 'if America sneezes, Japan catches pneumonia,' is even more applicable as the two economies become more integrated through overseas capital investments. Due to this continued trend toward interdependent economies, Japanese officials and business leaders acknowledge the fact that a healthy US economy is as important to the Japanese as it is for Americans.¹³⁷

d. Security Implications of Japan-PRC Capital Flows

Although Japan's aid flows have expanded to distant areas, Asia continues to be Japan's primary recipient of development assistance, and in recent years, the PRC has become Japan's number one aid recipient (see Figure 4.3). The 1978 Sino-Japanese trade agreement established a fundamental link between the two countries which functions to the benefit of Western allies. To nurture Sino-Japanese ties, a 320 billion yen (\$1.5 billion) loan was provided in 1979 for modernization projects. In March of 1984, Japan committed a second loan package of 470 billion yen (\$2.08 billion) for modernization projects planned for 1984 to 1990. Since 1982, the PRC has been Japan's number one ODA recipient; in 1985 the PRC received \$388 billion, over 10 percent of Japan's total ODA disbursements.

In addition to ODA credits, Japan's Export-Import Bank has extended over \$2 billion from 1979 to 1984 to the PRC for coal and oil resource development. Included in these efforts are joint venture energy resource projects, such as the off shore oil project between China's Bohai Oil Corp. and Japan's Chengbei Oil Development Corporation.¹³⁸

¹³⁷George R. Packard, "The Coming US-Japan Crisis," *Foreign Affairs* 66 (Winter 87/88): 2.

¹³⁸"China's Off Shore Oil Output Quadrupled During 1986," *The Wall Street Journal*, 18 Feb 1987, p. 31.

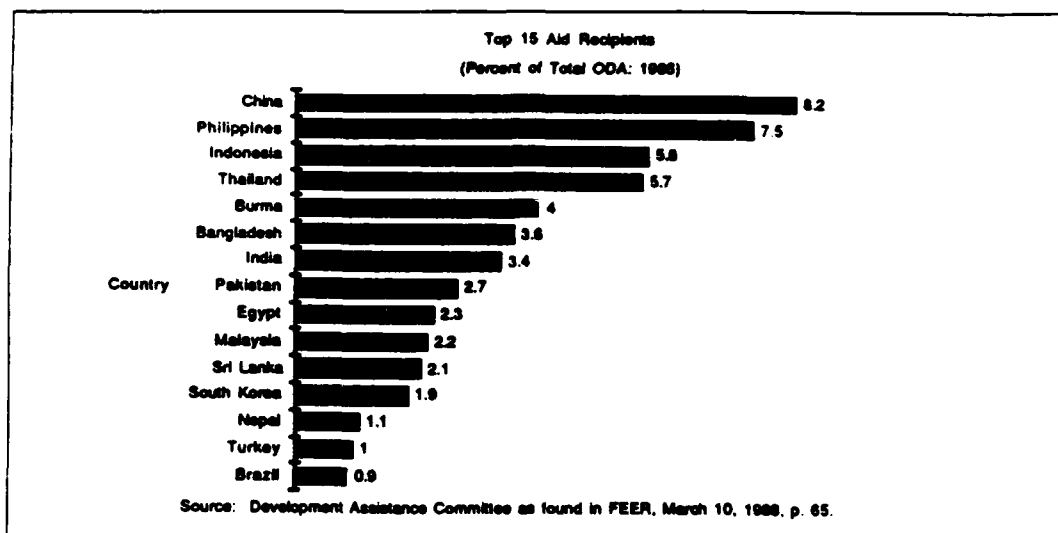


Figure 4.3 Japan's Top 15 Aid Recipients-1986.

China's loans from foreign investors have rocketed in recent years. Total foreign capital (which includes ODA, and other direct and indirect forms of investments) in 1983 reached \$9.61 billion, while estimates for 1986 indicate that overseas investments will be between \$25 and \$26 billion.¹³⁹ In the current Five-Year Plan ending in 1990, Beijing has indicated its modernization programs will seek approximately \$40 billion in loans from the international market.¹⁴⁰ At the cost of lending at lower interest rates, Japan has been extremely aggressive to ensure much of China's demand for foreign capital comes from Japanese sources. While US banks typically refuse to lend China at a minimum of .25 percent above the London Interbank offered rate, Japanese banks often lend below this rate.¹⁴¹

Profits and access to the China market are certainly significant aspects of Japan's interest in the PRC, however China's urgent need for capital to finance its modernization projects and Japanese capital flows have established a symbiotic relationship with security implications. Both Beijing and Tokyo share a common

¹³⁹"China's Appetite For Hard Currency Could Be Boom for Commercial Banks," *The Wall Street Journal*, 8 May 1987, p. 16.

¹⁴⁰"China's Growing Financial Needs Rate Red Carpet at Japan's Cash Rich Banks," *The Wall Street Journal*, 14 Oct 1986, p. 40.

¹⁴¹"Japan Winning Race in China," Nicholas Dikristof, *The New York Times*, 29 April 1987.

strategic interest in containing the Soviet Union. In addressing this threat, Japan clearly wants to enlist China's support in addition to that of the United States. Additionally, it is obvious to Tokyo and other Asian countries that a stable, modernizing China can contribute to overall peace and stability East Asia. Japanese capital flows to the PRC therefore maintain an economic link yielding returns in the form of security, clearly an investment formula within the designs of comprehensive security. While the PRC enjoys capital flows due to its diplomatic progress with the West, status as a "developing nation, and its ability to make ideological compromises for economic practicality, Soviet progress toward gaining Japanese technology and capital assets have been at a near stand still.

e. Security Implications of Japan-Soviet Capital Flows

The Soviet Union hopes to attract Japanese capital and technology to help finance its efforts toward economic recovery. The dismal performance of the Soviet centrally planned economy is evident in a comparison of previous five-year plans and results. Targets established by the Soviet Union's 1976-1980 Five-Year Plan sought 5 percent annual growth in Gross National Product.¹⁴² Acknowledging a sluggish economy with declining growth, Moscow lowered its growth target in the 1981-1986 Plan. Soviet planners sought a modest 4 percent annual growth, however even this figure proved to be excessively optimistic as the Soviet economy achieved only 2.0 percent growth. Moscow's most recent Five-Year Plan for 1986-1990 reduced its target even further with a growth target of only 3.5 to 4.0 percent per year (see Table 14).

The Soviet Union's 12th Five-Year Plan for 1986-1990 placed special emphasis on improving labor productivity and product quality as the primary means of reactivating its ailing economy. To be successful, Moscow is cognizant of the fact that it must import high technology equipment and plants at a time when foreign currency reserves are low due to falling exports precipitated by a slump in oil prices. Soviet economic shortfalls are therefore a combination of high technology and capital assets.

Development of Eastern Siberia is an integral aspect of Moscow's overall plan to reactivate its economy. Moscow hopes to exploit the resources in Soviet East Asia by industrializing the region. Led by Party Chairman Mikhail Gorbachev, Moscow aims to exploit the region's natural resources by focussing on six concerns: development of ocean resources; utilization of the region's extremely rich natural resources for locally produced finished products; excavation of fuel resources, such as gas, coal, and oil; improved production infrastructure; upgrade all aspects of

¹⁴²CIA, p. 64.

TABLE 14
USSR'S PLANNED AND ACTUAL ECONOMIC GROWTH

	Average Annual Rate of Growth				
	'66-'70	'71-'75	'76-'80	'81-'86	'87-'90
GNP					
Plan	6.5-7.0	5.8	5.0	4.0	3.5-4.0
Actual	5.0	3.0	2.3	2.0	N/A
Industry					
Plan	8.2	8.0	6.5	4.9	3.9 to 4.4
Actual	6.2	5.4	2.6	2.0	N/A
Agriculture					
Plan	5.5	3.7	5.0	5.0	2.8 to 3.4
Actual	3.7	-0.4	1.0	2.0	N/A

Source: CIA, Handbook of Economic Statistics-1986, September 1986.

production with the latest technology; and development of export - import trade facilities to include production cooperation and joint enterprises.¹⁴³ Although Eastern Siberia has tremendous potential for Soviet economic expansion, foreign investment in the Soviet Union remains low for several reasons. Among the most significant is cost effectiveness. While the region is abundant in mineral and energy resources, current commodity prices make these resources too expensive to excavate and process.¹⁴⁴

The United States, even beyond the nadir of Cold War relations, has worked to minimize Japan's economic progress toward excavating Soviet minerals. In light of Soviet actions in Afghanistan and martial law imposed in Poland, Reagan declared an embargo on oil and natural gas development equipment on June 18, 1982 against the Soviet Union. Since Japan and the Soviet Union were engaged in joint development of Sakhalin oil and natural gas, Tokyo quickly requested exemption from the embargo, but was refused. Although Washington later lifted the embargo in December, the incident left ill feelings between Japan and the US.¹⁴⁵ Since Europe and the United States have no interest in this affair, rapprochement with Japan has been aggressively, however clumsily, pursued. Moscow has attempted to attract Japanese

¹⁴³Mikhail Gorbachev, 28 July Speech in Vladivostok as found in *FBIS: USSR National Affairs* Vol. III, 29 July 1986, p. R5-R7.

¹⁴⁴Leifer, p. 47.

¹⁴⁵Research Institute for Peace and Security, *Asian Security-1983*, p. 39-40.

investment by relaxing joint venture laws and exchange of mineral resources realized through Siberian development¹⁴⁶ while avoiding a significant obstacle to improved Japan-Soviet relations: Soviet control of the northern territories.

Tokyo's apprehensions about actively investing in the Soviet Union are a combination of economic, political, and security concerns. Economically, Japanese experience in Siberian development projects have proved to be high risk investments. Difficult negotiations have resulted in few accomplishments and often, as in the case of the Tyumen oil project and Moscow's decision to build the Baikal-Amur Mainline, much frustration. The decision to build the BAM also had political implications as the PRC, concerned that the transportation line threatened its border, influenced Japan's decision to not participate in the project.

Japan was also concerned with security implications of becoming too dependent on the Soviet Union for its strategic resources. Particularly after the experience of two oil shocks, unpredictable Soviet behavior in overall global affairs, and Soviet refusal to negotiate a settlement over the northern territories, resource dependency on the Soviet Union is clearly detrimental to Japan's comprehensive security concerns. The potential for Japanese profits or influencing Soviet behavior through capital investment remain relatively low while risks are high. Although many Japanese businesses are willing to accept high risks for profit, Tokyo successfully acts as the conscience of Japanese businesses by discouraging private investments in the Soviet Union.

3. Exports

Japan averted catastrophic recession after the 1973 oil embargo by making adjustments to economic practices. With the exception of energy conservation measures, the most obvious and dramatic adjustment was an increase in exports and greater dependence on foreign markets. Japanese exports increased 60 percent in 1974 over the previous year, as exports assumed a greater percentage of the nation's economic growth. Many of these exports went to the United States which renewed trade tensions between the two countries.

Exports gradually assumed a greater portion of Japan's economy as domestic demand lagged behind. While exports as a percentage of GNP averaged 10.6 percent from 1961 to 1973, this figure increased to 13 percent for the period 1973 to 1979 and 15 percent for 1980 to 1985 (see Figure 4.4). In contrast to these figures, US exports

¹⁴⁶"USSR's Kamentasev Explains Joint Venture Scheme," *Nihon Keizai Shimbun*, 28 January 1987, p. 7.

comprised an average of only 6.6 percent and 6.5 percent for the same periods. As Japan's exports became the fundamental instrument for continued prosperity, US-Japan relations focussed on economic issues relating to trade friction.

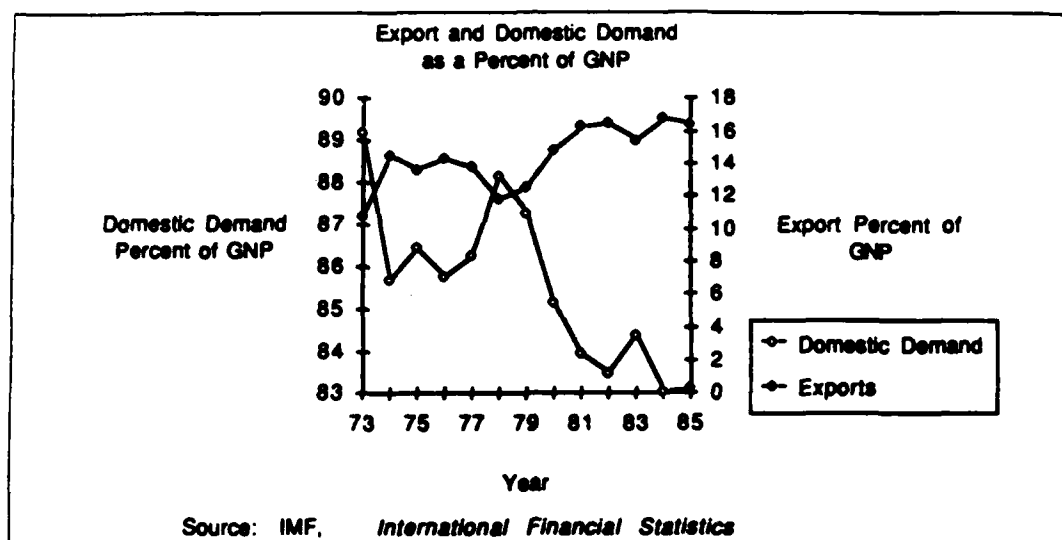


Figure 4.4 Japan's Domestic Demand and Export Percentages of GNP-1973-85.

Although domestic demand played a central role in postwar economic recovery, the economic miracle and Japan's ability to overcome global economic crises is centered around economic growth manifested by rising exports. In addition to dependence on foreign markets, dependence on other nations for raw materials and fuel presents a situation where Japan can afford few enemies. As a result, Japan's omnidirectional foreign policy adopted in the 1950's in support of the Yoshida Doctrine, continues to have a strong influence in current foreign affairs. Particularly since the Arab-Israeli War and OPEC's decision to curtail oil supplies to nations not supportive of the Arab cause, Japan has carefully positioned itself in the international political arena to maintain good relations with all nations while comfortably conducting trade with practically every marketplace of the world. Highlighting the significance of trade, Japan attempts to separate political issues from those of economic ones, thereby attempting to legitimize trade with nations inimical to the Western alliance.

Japan's continued dependence on the US for its economic growth is manifested in its reliance on the American marketplace for its exports. Japanese exports to the US comprised an average 33.2 percent of Japan's total exports from 1982 to 1986. The significance of the US market to Japan is even more impressive when contrasted with Japan's other trading partners. In 1986, Japan's best customers after the US were West Germany and South Korea, both purchasing only 5 percent of Japan's total exports. The United Kingdom, Netherlands, Belgium, France, West Germany and Italy combined imported only 18 percent, while Southeast Asia (comprised of Korea, Taiwan, Hong Kong, Thailand, Singapore, Malaysia, Brunei, Philippines, Indonesia and India for this comparison) represent 20 percent of Japan's foreign customers. Dependence on communist countries for Japanese exports totalled only 6.7 percent or \$14.1 billion with exports to the Soviet Union equal to \$3.2 billion (1.5 percent of Japan's total). More than twice the volume of that sent to the Soviet Union, the PRC comprised 4.7 percent of Japan's foreign demand, equalling \$9.8 billion.¹⁴⁷ Although Japan's exports to the PRC in 1986 were only slightly greater than its exports to Taiwan, the PRC's vast population and recent push for economic modernization suggest a tremendous long-term potential for absorbing Japan's economic growth, particularly in light of growing trade tensions and protectionist fears with other trade partners.

As Japanese exports surged after the first oil crisis, trade frictions developed with other industrialized nations. By 1980, US-Japan trade tensions were high as the US experienced its own economic difficulties precipitated by the second oil crisis of 1979. Japanese initiatives to reduce tensions included export restraints as a temporary measure to help US industries recover from economic difficulties; most notable is the voluntary restraint on auto exports imposed by MITI in 1981 and still in effect, limiting auto exports to the US to 2.3 million units. The US policy to resolve trade tensions has been a product-by-product, "retail" approach to open foreign markets. While this approach requires several negotiators, meetings and often discussions over minute details, it serves to focus efforts in problem areas while limiting the detrimental effects of retaliation, should such tactics be necessary. By focussing on specific areas such as agricultural goods, construction projects, computer microchips, and tobacco products, the US limits the scope of its tensions with Japan while separating these problems from areas where good relations are firmly established. Although the surge of exports to the US in the wake of the two oil crises relieved economic pressures in

¹⁴⁷JEI, "Statistical Profile," *JEI Report No. 34 A*, September 4, 1987, p. 18.

Japan, economic conditions of the 1980's reminded the Japanese of their dependence on a healthy US economy.

Poor economic conditions in the US had detrimental effects on Japan. The US's performance in real economic growth from 1980 to 1983 was poor as yearly GNP growth rates were -1.5, 1.9, -2.5, and 3.5 percent. While 1984's real GNP growth figure jumped to 6.5 percent, Japanese exports to the US rocketed as the current account balance reached a deficit of \$106.49 billion dollars, over twice the previous year.¹⁴⁸ Of the \$106.49 billion trade deficit bore by the United States, Japan alone claimed \$40.59 billion. As US economic growth staggered to 2.3 in 1985, Japanese exports to the US also fell by approximately 3 percent. Monetary policy once again surfaced in international economic relations similar to US initiatives in 1971, as leaders of the world's five largest industrialized democracies known as the Group of Five (or G-5) - United States, Japan, West Germany, France, and Great Britain - met in late September 1985. The industrial nations agreed that a concerted effort to lower the dollar's value was necessary to narrow the US trade deficit and invigorate the global economy. Following the agreement, the dollar fell sharply against the yen and other currencies making US goods more competitive by reducing their cost in foreign currencies.

The meeting marked a drastic change in Japan's economic performance. While the yen maintained a 240 to 250 level for the first half of 1985, economic growth was active, however after the decision to realign currency rates, the yen rapidly appreciated bringing stagnation to Japan's economy. Immediately before the G-5 meeting, the yen:dollar level was 240:1. By the following month, the yen appreciated over 16 percent to 200 yen, and in two years, the yen had appreciated 68 percent to 143. Exacerbating this trend, continued global US trade deficits triggered a stock market crash on October 19, 1987, waning confidence in the US economy and driving the dollar to a record low of 128 yen to the dollar in December of that year.

The strengthening yen battered Japan's export-oriented industries as export products to the United States became proportionately more expensive *vis a vis* the yen's appreciation. To maintain profits, several industries grudgingly raised wholesale prices at rates slower than the yen's appreciation.¹⁴⁹ In spite of higher costs in dollar terms, demand for Japanese products remained high as exports increased by over 4 percent in

¹⁴⁸ *IFS Yearbook 1986*, p. 691.

¹⁴⁹ Bernard Wysocki Jr., "Battling a High Yen Many Japanese Firms Shift Work Overseas," *The Wall Street Journal*, February 27, 1987, p. 1.

1985, largely due to Japanese price increases rather than rises in volume. Japanese demand for foreign products in 1985 however, dropped by almost 3 percent causing Japan's trade surplus to widen further.

Although the yen's appreciation finally drew exports down in 1986, the G-5's plans of reducing Japan's trade surplus seemed to backfire as the stronger yen and falling oil prices increased Japan's surplus figure. From 1980 to 1985, oil prices burdened industrial nations as prices hovered between \$28 and \$32 per barrel. In late 1985, Saudi Arabian oil suppliers broke ranks with OPEC and unilaterally raised production, dragging 1986 global oil prices down to approximately \$15 per barrel. Since oil transactions are based on dollar equivalents, the stronger yen purchased more oil, reducing the level of Japanese imports to its lowest level since 1978. Rather than reducing trade imbalances, the stronger yen produced a phenomenon known to economists as the J-curve, creating larger dollar transactions with smaller trade volume, pushing Japanese surpluses even higher.¹⁵⁰

In view of these developments, the group of industrialized nations (joined by Canada and Italy to form the G-7), met in Louve, France to reach an agreement in stabilizing exchange rates through government intervention in February 1987. By using foreign currency reserves and adjusting federal discount rates (interest rates applied by central banks for money lent to large private banks), the G-7 nations agreed to prop up and stabilize the dollar.

The failure of monetary policies to reduce the US trade deficit brought strident criticism from Congress. The Democratic majority of the 100th Congress began its first session by reintroducing the 1986 trade bill HR 4800, as HR 3 on its first day. Although the White House had consistently vetoed protectionist legislation, the Democratic majority hoped that the growing trade deficit and rising tensions between the US and its trade partners (particularly Japan, the Republic of Korea, Federal Republic of Germany, and Taiwan) would contribute to greater support for the bill. Among the several measures included in the omnibus trade bill are required disclosure of foreign investments in the US (John Bryant, D., Texas), Federal Reserve Board restriction from granting primary dealer status to foreign firms if US companies do not have equal access to purchases of government debt instruments in the dealer's home countries (Charles Schumer, D., NY), and provisions directing the US Trade Representative to initiate a Section 301 investigation (Section 301 of the 1974 Trade

¹⁵⁰Research Institute for Peace and Security, *Asian Security-1986* (NY, New York: Brassey's Defense Publisher, 1986), p. 168-9.

Bill) of restrictions on US architectural, engineering, construction and consulting services in Japan. Perhaps the most threatening aspect of the bill, however, was an amendment proposed by Representative Richard Gephardt (D., MO.) requiring the international Trade Commission to identify countries with "unwarranted" trade surpluses to the President. The President would then be required to take actions to reduce that nation's surplus by at least 10 percent until unfair trade practices have stopped or trade imbalances reach a tolerable level. According to the amendment, a nation had an "unwarranted" surplus if its export to import ratio with the US exceeded 175 percent, its total US trade was greater than \$7 billion, its bilateral surplus was greater than \$3 billion (with the exception of petroleum), and had a global trade surplus.¹⁵¹ In effect, the Gephardt Amendment called for an end to the standing "retail" trade policy by introducing a retaliatory trade policy based on "wholesale" measures of bilateral trade flows and patterns of trade barriers.¹⁵²

The Republican response headed by Senator Robert Dole (R., Kansas) and House Representative Robert Michel (R. IL), came on February 19, 1987 when the respective minority leaders proposed S 539 and HR 115, identical bills taking a more focussed view of trade problems than HR 3. It identified five areas key to improving US competitiveness: increased protection for intellectual property rights; legal and regulatory reforms; and "improving the international economic environment" through trade law reform. Although the House has passed the HR 3 trade bill in April along with a Senate revision, the Republican supported trade bill is still being considered in Congress. The Senate amended HR 3 maintained restrictive presidential authority in the case of unfair trade practices, the Senate bill did not include the 10 percent requirement to reduce bilateral trade deficits, giving greater discretion to the executive office. In light of the Toshiba-Kongsberg incident, the Senate bill also included a two to five year ban on Toshiba imports as sanctions against the Japanese company.

To ease pressures from Congress and the semiconductor industry, President Reagan imposed a 100 percent retaliatory tariff on Japanese semiconductor exports after Japan's computer chip manufacturers continued to violate a July 1986 semiconductor agreement to stop unfair trade practices (primarily dumping) in the US and other countries.¹⁵³ Although this sanction relieved some protectionist pressure by

¹⁵¹ JEI, *JEI Report No. 19A*, May 15, 1987, p. 1-6.

¹⁵² Walter S. Mossberg, "Trade Policy Dilemma: Wholesale or Retail," *The Wall Street Journal*, March 14, 1988, p. 1.

¹⁵³ Brenton R. Schlender, "US Chip Firms Ask Reagan to Penalize Japanese

taking a tougher stance on unfair trade issues, advocates of these measures have kept HR 3 alive in Congress and on the presidential campaign trail as a threat to nations dependent on the US market.

Controversy over HR 3 typifies the attitudes in Congress over trade legislation. While adverse trade statistics served to fuel Japan-bashing reactionaries and their pursuit for retaliatory measures, other perspectives in Congress have preferred a more practical approach to trade problems by avoiding punitive measures and opting for a more focussed approach to trade disparities. As the the global economy becomes more integrated and multinational corporations and cooperatives play a more significant role in investment, production, and trade, monthly trade statistics ranking current account surpluses and deficits will assume less importance in economic and security policymaking.¹⁵⁴

Although both houses passed an amended version of HR 3, the bill faces an inevitable presidential veto. Despite its demise, the omnibus trade bill served an important role in US policymaking. With Richard Gephardt's poor showing as a presidential candidate, the results of his campaign demonstrate a lack of national support for his protectionist stance. Due to Gephardt's poor support, his amendment was dropped from the bill and the exercise served to quiet Japan-bashers and defuse protectionist sentiments in Congress. Even more important, defeat of a retaliatory bill based on general trade indicators, prevented economic conditions injurious to Japan's vital economy and therefore Western security in Asia.

4. Science and Technology

As already noted in previous sections, the application of advanced technology in Japan has contributed to its economic growth in areas such as energy efficiency; expansion of food supplies; industrial efficiency; and product improvement, particularly in export goods to better compete in international markets. Until the late seventies, Japanese domestic research and development efforts were minimal and most technologies required to boost industrial efficiency and Japan's overall economy came from industrialized countries, primarily the United States. Two decades ago, Japan's position in technology reflected its developing country status as its technology trade ratio (receipts compared with payments for patent royalties, licenses, etc.) was 1:47 and Japanese researchers numbered a mere 25 for every 10,000 members of the work force,

Makers, Threatening Accord," *The Wall Street Journal*, February 10, 1987, p. 2.

¹⁵⁴Kenichi Ohmae, *Beyond National Borders: Reflections on Japan and the World* (Homewood, IL: Dow Jones-Irwin, 1987), p. 21-42.

compared to 64 researchers per 10,000 in the United States.¹⁵⁵ In addition to these statistics reflecting Japan's relatively modest position in technology trade and research efforts, Japan, until 1973, has made few gains as a developer of original technologies and has been more adept at implementing good ideas toward consumer goods. In an article of *The Economist* featuring Japanese and US high-technology, Stanford University's Daniel Okimoto lists several reasons for Japan's lack of technological originality:

- As an industrial latecomer, Japan has always been trying to catch up.
- The Japanese tendency towards group conformity has made it difficult to win a hearing at home for radical ideas.
- Research in Japanese universities is bureaucratic, starved of cash and dominated by old men.
- The venture-capital market is almost non-existent.
- Lifetime employment, along with a rigid seniority system, stifles innovation inside industry.
- The traditional heavy gearing (high debt-to-equity ratio) of much of Japanese industry has made firms think twice about taking risks.¹⁵⁶

Although these reasons were applicable in the past, economic developments in currency realignments, deregulation of Tokyo's financial markets, and capital formation have created a new, if not necessary environment for greater initiative in domestic research and development efforts. Since 1974, Japan's economy has shown signs of economic maturity which have signalled the need to address new economic challenges and grasp additional responsibilities.

Among the most significant signs of Japan's economic maturity indicating new challenges is the slower rate of economic growth compared to its two previous decades. In *Japan: Facing Economic Maturity*, Edward J. Lincoln acknowledges the significant effects of the two oil crises on Japan's economic slowdown, however notes that Japan's performance relative to other industrial nations has also dropped.¹⁵⁷ In line with his central theme, Japan since the mid-1970's has been a nation in the midst of economic maturity and, as a result, has essentially caught up with the leading industrialized nations of the world in several areas, most notably technology. The traditional low-

¹⁵⁵Lynn, p. 418.

¹⁵⁶Nicholas Valery, "High-Technology: Japan and the United States: A Survey," *The Economist*, August 23, 1986, p. S5.

¹⁵⁷Edward J. Lincoln, *Japan: Facing Economic Maturity* (Washington, DC: The Brookings Institute, 1988), p. 39-68.

risk approach of importing technologies developed by other nations, then applying foreign know-how to out-produce and out-price other countries for market shares is slowly coming to an end. As a maturing nation, importing advanced technology to boost economic growth will become increasingly difficult as Japan nears technological parity with its industrialized partners.

Although importing technology to improve production has been by no means inexpensive, until recently Japanese industries have been able to avoid the more expensive costs of domestic research and development that advanced nations on the leading edge of technology find necessary to maintain competitiveness. While these costs have become extremely high, the rates of return on investment are typically low. Despite these high costs, Japanese industries have recently accepted the necessity to conduct domestic research and development. Although progress toward developing endogenous technologies has been slow, recent developments indicate Japan is actively preparing for its technological future, while potentially creating a new field for US-Japan competition, if not tensions.

Even as the yen reached new highs and Japanese manufacturing/export industries were among the first to feel the economic pressure, private company research and development expenditures continued to rank high in their budgets. The steel industry which underwent exceptional hardship since the yen's climb, is maintaining research and development spending in the face of cheaper steel produced in countries such as Korea and Brazil realized through currency realignments. Nippon Kokan, Japan's second largest steel company, increased research and development spending 15 percent in 1986 while Kobe Steel and Kawasaki Steel have stubbornly maintained spending levels from the previous year. While these companies acknowledge the fact that Japan's steel industry will never regain production levels of the seventies, Japan's steel industry represent the attitude of "sunset industries" which are developing technologies for their transition to new fields. Kobe Steel researchers, for example, are studying biotechnology, water processing and alcohol production; Kawasaki Steel has committed 60 percent of its over 400 researchers to non-steel areas such as laser development, semi-conductors, solar cells, and synthetic materials. The attitude of committing assets to research and development is common among sunset industries weakened by Japan's hollowization, as well as thriving industrial sectors. According to managing director of Japan's prosperous Mitsubishi Electric Corporation, "When

things get rough, the trend here is to focus even more on research ... that's one of our weapons against the high yen."¹⁵⁸

Japan ranks among the top as a nation committed to research and development. In 1985 Japan ranked third in total research investments, behind the US and Soviet Union, spending 7.894 trillion yen (\$54.7 billion), 60 percent of what the US spent in the same year (see Appendix F). As a percentage of GNP, Japanese investments surpassed the US with 2.77 percent compared to 2.72 of the US.¹⁵⁹ To economize its scientific assets, policymakers have taken the initiative to coordinate efforts of the government's research assets by consolidating scientists and research facilities, hoping to achieve more rapid technological gains.

In 1980, the Japanese government under the direction of MITI, the Ministry of Construction, the National Land Agency, and the Ministry of Agriculture, Forestry, and Fisheries completed a long-range plan to establish a center for government research and development laboratories. Conceived in September 1961 by members of the Ikeda Cabinet, the plan called for establishing a science city outside the increasingly congested metropolis of Tokyo, to pool the research assets of the government agencies. Although the concept was formed as early as the 1960's, progress toward establishing the science city, or "City of Brains" as it is popularly called, has been hampered by several problems, not least of which have been resistance to acquire precious land from angry farmers and reluctance on the part of researchers to move to a relatively undeveloped area where star-gazing served as the primary use of leisure time.

After investing over \$5.5 billion in government funds, Tsukuba City has become the high-tech research capital of Japan with its laboratories taking on an almost religious aura because of their importance for Japan's economic future. Although the project was initially planned only for government research facilities, the city, located only thirty-five miles northeast of Tokyo, now supports over 11,500 researchers in 46 government institutes and seven private research institutes, as well as two universities. From these facilities, advanced technologies are being developed to propel Japan's new industries into high-tech fields. Research and development are currently being conducted in futuristic areas such as superconductivity, a fifth

¹⁵⁸Stephen K. Yoder, "Japan's Troubled Industries Stress Research and Development," *The Wall Street Journal*, 25 March 1987, p. 28.

¹⁵⁹"Japan Allots a Greater share of GNP To Research Spending than US Does," *The Wall Street Journal*, 24 December 1986, p. 14.

generation supercomputer with artificial thought capabilities for high speed information processing, advanced robotics also with artificial intelligence capabilities, biotechnology methods for advanced medicines and food production, fine ceramics to relieve dependence on natural resources, and artificial energy production techniques to ease Japan's reliance on foreign energy sources.¹⁶⁰

As Japan bolsters its ability to conduct basic research, its scientific and economic community have maintained strong academic ties with the United States, acknowledging the fact that Japan still looks to the West for basic innovations that drive technology. Many Japanese companies send their promising engineers to engineering schools and science centers to help maintain Japan's research pace with leading-edge technology developments, but more important, to learn how American scientists create new technologies. Japanese visitors are typically more interested in how American scientists conduct research, rather than specific technologies developed in projects. Companies committed to basic research have been especially attracted to the Massachusetts Institute of Technology and University of California at Berkeley, as these universities have become popular finishing schools for Japanese researchers.¹⁶¹

Although it trails the US in basic research achievements, Japanese industries have been extremely successful in applying new technologies to profitable products such as steel, automobiles, consumer electronics and cheap microchips. In each of these sectors, Japan's successes have been at the expense of their US counterpart who have often failed to make timely use of the latest technologies toward marketable products. As a result, the US dominance in technology trade has dwindled from \$23.6 billion in 1980 to \$5 billion in 1984. As Japan continues to gain ground in applied technologies and commits assets to improve domestic research and development, Japan hopes its next dominant sector will be the high-tech industries.

With the experience gained by the Tsukuba project and studying the development of other science centers such as California's Silicon Valley and North Carolina's Research Triangle, Japan launched its Technopolis program in 1980. Although the aim of this program is to develop science centers throughout Japan, in contrast to Tsukuba's research center, the Technopolis program is designed to establish 19 cities where government, private enterprises and universities will focus their assets in cooperative research efforts (see Figure 4.5). Also, the Technopolis program relies

¹⁶⁰Tatsuno, p. 93-112.

¹⁶¹David Stipp, "Japan's Top Engineers and Scientists Receive Extra Training at MIT," *The Wall Street Journal*, January 23, 1987, p. 1.

more on private corporations and municipal funds with the aid of government tax incentives as Tokyo continues to exercise fiscal austerity in the face of rising deficits. By collecting efforts from these three areas, policymakers hope Japan will make more rapid technological gains with immediate application in high-tech industries while relieving the congestion in major metropolitan areas, particularly Tokyo and Osaka. Although the Technopolis centers will be dispersed throughout the country, planners intend to integrate these centers through advanced communications systems currently being developed by Japan's recently privatized Nippon Telephone and Telegraph (NTT).

As Japan makes its commitment to creating advanced technologies through research and development, these efforts will make contributions to Japan's national interest and concept of national security by bolstering its economic assets. While making these gains, the high-tech field has also been a source of both tensions and potential mutual security burden-sharing with the United States. Tensions in the field of high-technology have developed in several areas as sophisticated Japanese products have become more competitive in global markets. Friction in the electronics field was manifested by the US Semiconductor Industry Association's (SIA) complaint of Japanese computer chip-dumping in accordance with the Article 301 provision of the 1974 Trade Act. The complaint, filed in June 1985, led to a 100 percent tariff against \$300 million worth of Japanese chips imposed by President Reagan in April 1987.

In an area of even greater technological sophistication, the FSX project was to lay the technological foundation of a more competitive aircraft industry by developing and producing Japan's own jet fighter for the 1990's. Instead, the program fell under the weight of the Toshiba incident and pending omnibus trade bill. On October 2, 1987, Japan's Defense Agency Director Kurihara Yuko announced Japan's intent to co-license either General Dynamic Corporation's F-16 or the McDonnell Douglas Corporation's F-15. The decision to forgo development of Japan's domestic FSX was obviously a measure to reduce tensions as George Packard notes:

It was significant that Senator John Danforth (R., MO.), a leading advocate of tougher trade measures against Japan, also hails from the state which is home to both McDonnell Douglas and General Dynamics. The Japanese understood, correctly that a decision to go it alone would have produced a firestorm on Capital Hill. They would have been charged with exacerbating the US trade deficit. The political and military alliance would have become hopelessly entangled with economic questions. The forces for Japan-bashing would have

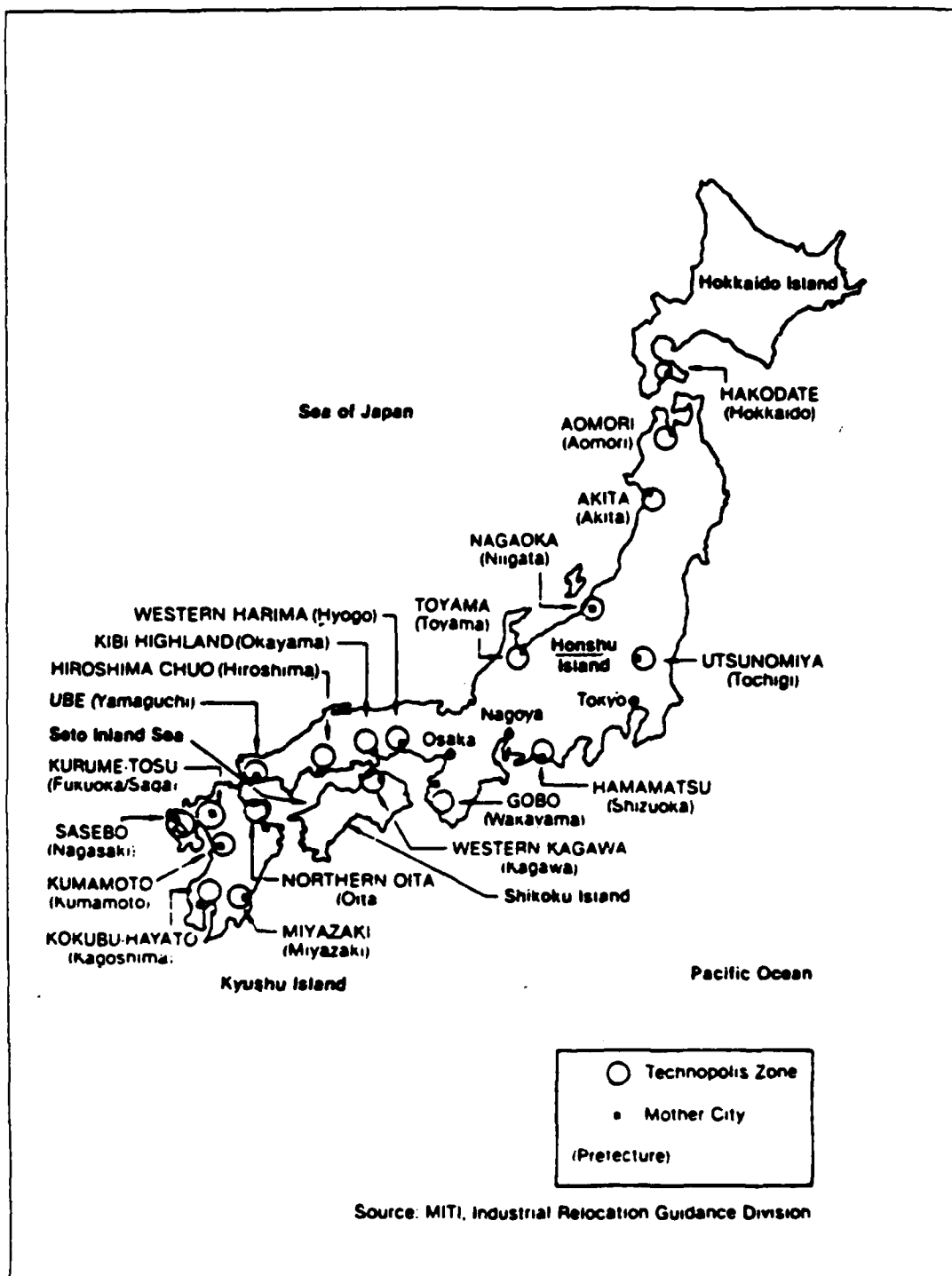


Figure 4.5 Proposed Technopolis Sites.

been strengthened, and the Toshiba sanctions would almost certainly have become law.¹⁶²

The potential for Japanese research and development to contribute to mutual defense and reduce criticism of a 'free ride' exists, however such contributions have not yet been realized. Out-spent, out-manned and out-gunned by the Soviet Union, the Western strategy headed by the US is to rely on superior technological capability to produce the force multiplier effects that maintain Western deterrence, or if necessary, affords the ability to fight out numbered and win.¹⁶³ The "Competitive Strategy" and Conventional Defense Initiative (CDI) emphasizes the need to pool research and development efforts by Western allies to achieve the necessary level of advanced technology for military weapons.

In January 1983, Japan agreed to provide the United States, defense related technology on a case-by-case basis, however little progress has been in this area. Over three years later, only two defense-related technology transfers were discussed. The first transfer discussed, was Toshiba Corporation's missile tracking and guiding technology to the US Army, and second Ishikawa-Harima Heavy Industries' "armed tanker" building technology to the US Navy.¹⁶⁴ But as of May 1988, only two defense related technology transfers have been completed, both related to upgrading weapons systems on US Navy ships. The avenues in which Japan can make significant contributions in defense related technology toward mutual security have expanded with Japan's decision to participate in the research and development stage of SDI. Additionally, Tokyo's decision to co-license production of the F-16 and undergo development to upgrade the aircraft creates another avenue for Japanese researchers to contribute to mutual security in the vein of CDI.

As with the Strategic Defense Initiative, Japanese researchers are willing to participate in CDI research, however their participation is not just a contrivance for military security, but also a catalyst for bringing spectacular scientific breakthroughs and industrial advances.¹⁶⁵ As its research assets become more sophisticated, Japan's

¹⁶²Packard, 356-7.

¹⁶³*Defense Department Report of the Secretary of Defense Caspar W. Weinberger on the FY 88 Budget and FY 88-92 Defense Programs* (Washington, DC: Government Printing Plant, 1987), p 245-251.

¹⁶⁴"Armed Tanker Technology to be provided to US," *Nihon Keizai Shimbun*, August 21, 1986, p. 1.

¹⁶⁵Takase Shoji, "What 'Star Wars' means to Japan," *Japan Quarterly*: 32

ability to make valuable contributions to mutual security in an economic vein can increase with cooperation, or deteriorate under the weight of bilateral tensions. US and Japanese attempts to establish a more cooperative arrangement would not only improve economic relations, but also enhance the posture of mutual security.

V. CONCLUSION

The research for this study has analyzed the development of the security environment in the Pacific Asian region since World War II and the factors in the concomitant growth of Japan's economy. It supports the original hypothesis that the Japanese are convinced that the maintenance of a satisfactory security situation requires peace and stability which is as dependent on Japan's economic strength as upon the military might of the United States.

This thesis has examined the nature of Japan's domestic demands, exports, capital formation and science and technology as they developed since the close of world war. In the aftermath of war, while its economy was in ruin, American economic and security policies accommodated Japan's dependence on the United States. Now however, Japan is no longer a developing nation on the brink of starvation, and through the economic foundation established during the late 1950's and 1960's, Japan has managed to overcome major threats, becoming stronger after surmounting each challenge. With an economy that has amassed huge capital assets and technological skills, Japan's presence in global affairs wields tremendous influence with the United States which has become dependent on foreign investments, with communist nations hoping to restart economic development, and with developing nations seeking economic assistance and stability. While the Soviet Union undergoes its professed economic and political reforms, Moscow looks to Japan as a potential source of capital and technology to boost its economy. Although Soviet leaders remain hopeful in securing foreign investments, Japanese apprehensions over the symbolic northern territories, and more significantly unpredictable global behaviour and fading prospects of profitable returns have made investment opportunities in the PRC more attractive.

Japan occupies a significant role in the economic development of Asia and therefore its stability. Recently, it has also fulfilled a role in linking a communist giant to the West. This role is not new to Japan as it has been a principle actor in nurturing the economically successful Newly Industrialized Countries (NIC's) of the Pacific. Through its abundant assets in capital, technology, and managerial skills, *comprehensive security* has made contributions to mutual security in ways a stronger

defense force could not achieve. As the financial center of Asia, Japan's interests in supporting an economically viable and stable region capable of conducting international commerce have served US interests as well. In contrast to its relations with the NIC's, Japan's ties with the PRC fulfill a security role in East-West relations as Beijing's closest tie to the West realized through the 1978 trade agreement, followed by large capital flows. Underlying this economic strength however, is Japan's relationship with the United States. The strains between the two are increasingly evident.

The US-Japan relationship is still strong in spite of tensions in trade, technology, investment and pressures upon Japan for heavier defense expenditures. Although heavily dependent on trade, Tokyo often takes an overprotective view of its own domestic markets. Despite the Japanese government making tremendous progress in leading sunset industries toward futuristic high-tech sectors, it continues to subsidize an inefficient agricultural sector at the expense of high prices and greater tensions with the United States. The US feels it must maintain its product-by-product policy of addressing trade disputes with Japan, either bilaterally or in an international forum such as GATT. Japan appears more willing to accept an international role commensurate with its economic strength, yet so fraught with security responsibilities.

Japan's economy now relies more on advanced technology to meet its challenges in areas such as resource dependency, export competitiveness, and economic slowdown manifested by a shrinking heavy-industry sector. As Japan's research and development fields advance to the cutting edge, the relationship among the group of leading technology nations can bolster security efforts for the West through cooperation, or compound economic tensions among friendly nations where trade and investment imbalances have already caused uneasy partnerships.

A fundamental question is whether the two countries are satisfied with the asymmetrical relationship which casts Japan as the junior partner in the present security arrangement. The report on Comprehensive Security suggests that Japan is not a junior partner, but contributes equally to security through economic means. In the American view, Japan's position as an economic superpower is of much lower risk than that of the United States. If Japan truly wants to fulfill a global role commensurate with its economic position, it must assume more responsibility as a provider of the means of deterrence and defense.

At the same time, Japan appreciates the depth of its Asian neighbors fear of a reborn militaristic, ultra-nationalistic Japan. The United States and Japan together must work to avoid the reappearance of the nightmares that haunted Greater East Asia on the eve of World War II. As powerful allies, United States and Japan together must continue to work to find the optimum mix of economic strength and military power on the part of both that will guarantee peace, stability and potential progress not only in the Pacific East Asia region but beyond that in the entire global community.

APPENDIX A
TREATY OF MUTUAL COOPERATION AND SECURITY BETWEEN
THE UNITED STATES OF AMERICA AND JAPAN

Following is the text of the Treaty of Mutual Cooperation and Security signed at Washington, DC on January 19, 1960, ratified by the US Senate on June 22, 1960, ratified by the President of the United States on June 22, 1960, and ratified by Japan on June 21, 1960. Ratifications were exchanged at Tokyo on June 23, 1960, proclaimed by the President of United States on June 27, 1960, and entered into force on June 23, 1960.¹⁶⁶

The United States of America and Japan,

Desiring to strengthen the bonds of peace and friendship traditionally existing between them, and to uphold the principles of democracy, individual liberty, and the rule of law,

Desiring further to encourage closer economic cooperation between them and to promote conditions of economic stability and well-being in their countries,

Reaffirming their faith in the purposes and principles of the Charter of the United Nations, and their desire to live in peace with all peoples and all government,

Recognizing that they have the inherent right of individual or collective self-defense as affirmed in the Charter of the United Nations,

Considering that they have a common concern in the maintenance of international peace and security in the Far East,

Having resolved to conclude a treaty of mutual cooperation and security,

Therefore agree as follows:

Article I

The Parties undertake, as set forth in the Charter of the United Nations, to settle any international disputes in which they may be involved by peaceful means in such a manner that international peace and security and justice are not endangered and to refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any states, or in any other manner inconsistent with the purposes of the United Nations.

¹⁶⁶*United States Treaties and Other International Agreements, Vol II* (Washington, DC: US Government Printing Office, 1961), p. 1632-5.

The Parties will endeavor in concert with other peace-loving countries to strengthen the United Nations so that its mission of maintaining international peace and security may be discharged more effectively.

Article II

The Parties will contribute toward the further development of peaceful and friendly international relations by strengthening their free institutions, by bringing about a better understanding of the principles upon which these institutions are founded, and by promoting conditions of stability and well-being. They will seek to eliminate conflict in their international economic policies and will encourage economic collaboration between them.

Article III

The Parties, individually and in cooperation with each other, by means of continuous and effective self-help and mutual aid will maintain and develop, subject to their constitutional provisions, their capacities to resist armed attack.

Article IV

The Parties will consult together from time to time regarding the implementation of this Treaty, and, at the request of either Party, whenever the security of Japan or international peace and security in the Far East is threatened.

Article V

Each Party recognizes that an armed attack against either Party in the territories under the administration of Japan would be dangerous to its own peace and safety and declares that it would act to meet the common danger in accordance with its constitutional provisions and processes.

Any such armed attack and all measures taken as a result thereof shall be immediately reported to the Security Council of the United Nations in accordance with the provisions of Article 51 of the Charter. Such measures shall be terminated when the Security Council has taken the measures necessary to restore and maintain international peace and security.

Article VI

For the purpose of contributing to the security of Japan and the maintenance of international peace and security in the Far East, the United States of America is granted the use by its land, air and naval forces of facilities and areas in Japan.

The use of these facilities and areas as well as the status of United States armed forces in Japan shall be governed by a separate agreement, replacing the

Administrative Agreement under Article II of the Security Treaty between the United States of America and Japan, signed at Tokyo on February 28, 1952, as amended, and by such other arrangements as may be agreed upon.

Article VII

This Treaty does not affect and shall not be interpreted as affecting in any way the rights and obligations of the Parties under the Charter of the United Nations or the responsibility of the United Nations for the maintenance of international peace and security.

Article VIII

This Treaty shall be ratified by the United States of America and Japan in accordance with their respective constitutional processes and will enter into force on the date on which the instruments of ratification thereof have been exchanged by them in Tokyo.

Article IX

The Security Treaty between the United States of America and Japan signed at the city of San Francisco on September 8, 1951 shall expire upon the entering into force of this Treaty.

Article X

This Treaty shall remain in force until in the opinion of the Governments of the United States of America and Japan there shall have come into force such United Nations arrangements as will satisfactorily provide for the maintenance of international peace and security in the Japan area.

However, after the Treaty has been in force for ten years, either Party may give notice to the other Party of its intention to terminate the Treaty, in which case the Treaty shall terminate one year after such notice has been given.

In witness whereof the undersigned Plenipotentiaries have signed this Treaty.

Done in duplicate at Washington in the English and Japanese languages, both equally authentic, this 19th day of January, 1960.

FOR THE UNITED STATES OF AMERICA:

Christian A. Herter

Douglas MacArthur 2nd

J. Graham Parsons

FOR JAPAN:

Kishi Nobusuke

Fujiyama Aiichiro

Ishii Mitsujiro

Adachi Tadashi

Asakai Koichiro

APPENDIX B
PEACE TREATY BETWEEN JAPAN AND THE PEOPLE'S REPUBLIC
OF CHINA

Following is the text (unofficial translation) of the peace treaty signed August 12, 1978, by representatives of Japan and the People's Republic of China.¹⁶⁷

Japan and the People's Republic of China, recalling with satisfaction that since the government of Japan and the government of the People's Republic of China issued a joint communique in (Peking) on September 29, 1972, the friendly relations between the two governments and the peoples of the two countries have developed greatly on a new basis.

Confirming that the above mentioned joint communique constitutes the basis of the relations of peace and friendship between the two countries and that the principles enunciated in the joint communique should be strictly observed.

Confirming that the principles of the charter of the United Nations should be fully respected.

Hoping to contribute to peace and stability in Asia and in the world.

For the purpose of solidifying and developing the relations of peace and friendship between the two countries,

Have resolved to conclude a treaty of peace and friendship and for that purpose have appointed as their plenipotentiaries:

Japan:

Minister for Foreign
Affairs Sunao Sonoda

People's Republic of China:

Minister of Foreign
Affairs Huang Hua

Who, having communicated to each other their full powers, found to be in good and due form, have agreed as follows:

¹⁶⁷*China: US Policy Since 1945* (Washington, DC: Congressional Quarterly, 1980), p. 340.

Article I

1. The contracting parties shall develop relations of perpetual peace and friendship between the two countries on the basis of the principles of mutual respect for sovereignty and territorial integrity, mutual non-aggression, non-interference in each other's internal affairs, equality and mutual benefit and peaceful co-existence.

2. The contracting parties confirm that, in conformity with the foregoing principles and the principles of the charter of the United Nations, they shall in their mutual relations settle all disputes by peaceful means and shall refrain from the use of threat of force.

Article II

The contracting parties declare that neither of them should seek hegemony in the Asia-Pacific region or in any other region and that each is opposed to efforts by any other country or group of countries to establish such hegemony.

Article III

The contracting parties shall, in the good-neighborly and friendly spirit and in conformity with the principles of equality and mutual benefit and non-interference in each other's internal affairs, endeavor to further develop economic and cultural relations between the two countries and to promote exchanges between the peoples of the two countries.

Article IV

The present treaty shall not affect the position of either contracting party regarding its relations with third countries.

Article V

1. The present treaty shall be ratified and shall enter into force on the date of the exchange of instruments of ratification which shall take place at Tokyo. The present treaty shall remain in force for ten years and thereafter shall continue to be in force until terminated in accordance with the provisions of paragraph 2.

2. Either contracting party may, by giving one year's written notice to the other contracting party, terminate the present treaty at the end of the initial ten-year period or at any time thereafter. . .

APPENDIX C

COMMUNIQUE BETWEEN JAPAN AND THE PEOPLE'S REPUBLIC OF CHINA

Following is the text (unofficial translation) of the communique signed September 29, 1972, by Prime Minister Kakuei Tanaka of Japan and Premier Chou En-lai of the People's Republic of China.¹⁶⁸

At the invitation of Premier Chou En-lai of the State Council of the People's Republic of China, Prime Minister Kakuei Tanaka of Japan visited the People's Republic of China from September 25-30, 1972. Accompanying Prime Minister Kakuei Tanaka were Foreign Minister Masayoshi Ohira, Chief Cabinet Secretary Susumu Nikaido and other Government officials.

Chairman Mao Tse-tung met Prime Minister Kakuei Tanaka on September 27. The two sides had an earnest and friendly conversation.

Premier Chou En-lai and Foreign Minister Chi Peng-fei had an earnest and frank exchange of views with Prime Minister Kakuei Tanaka and Foreign Minister Masayoshi Ohira, all along in a friendly atmosphere, on various matters between the two countries and other matters of interest to both sides, with the normalization of relations between China and Japan as the focal point, and the two sides agreed to issue the following joint statement of the two Governments:

China and Japan are neighboring countries separated only by a strip of water, and there was a long history of traditional friendship between them. The two peoples ardently wish to end the abnormal state of affairs that has hitherto existed between the two countries. The termination of the state of war and the normalization of relations between China and Japan - the realization of such wishes of the two peoples will open a new page in the annals of relations between the two countries.

The Japanese side is keenly aware of Japan's responsibility for causing enormous damages in the past to the Chinese people through war and deeply reproaches itself. The Japanese side reaffirms its position that in seeking to realize the normalization of relations between Japan and China, it proceeds from the stand of fully understanding

¹⁶⁸Congressional Quarterly, *Historic Documents: 1972* (Washington, DC: Congressional Quarterly, 1973), p. 828-30.

the three principles for the restoration of diplomatic relations put forward by the Government of the People's Republic of China. The Chinese side expresses its welcome for this.

Although the social systems of China and Japan are different, the two countries should and can establish peaceful and friendly relations. The normalization of relations and the development of good-neighborly and friendly relations between the two countries are in the interests of the two peoples, and will also contribute to the relaxation of tension in Asia and the safeguarding of world peace.

(1) The abnormal state of affairs which has hitherto existed between the People's Republic of China and Japan is declared terminated on the date of publication of this statement.

(2) The Government of Japan recognizes the Government of the People's Republic of China as the sole legal Government of China.

(3) The Government of the People's Republic of China reaffirms that Taiwan is an inalienable part of the territory of the People's Republic of China. The Government of Japan fully understands and respects this stand of the Government of China and adheres to its stand of complying with Article 8 of the Potsdam Proclamation.

(4) The Government of the People's Republic of China and the Government of Japan have decided upon the establishment of diplomatic relations as from September 29, 1972. The two Governments have decided to adopt all necessary measures for the establishment and the performance of functions of embassies in each other's capitals in accordance with international law and practice and exchange ambassadors as speedily as possible.

(5) The Government of the People's Republic of China declares that in the interest of the friendship between the peoples of China and Japan, it renounces its demand for war indemnities from Japan.

(6) The Government of the People's Republic of China and the Government of Japan agree to establish durable relations of peace and friendship between the two countries on the basis of the principles of mutual respect for sovereignty and territorial integrity, mutual non-aggression, noninterference in each other's internal affairs, equality and mutual benefit and peaceful coexistence.

In keeping with the foregoing principles and the principles of the United Nations Charter, the governments of the two countries affirm that in their mutual relations, all disputes shall be settled by peaceful means without resorting to the use or threat of force.

(7) The normalization of relations between China and Japan is not directed against third countries. Neither of the two countries should seek hegemony in the Asia-Pacific region and each country is opposed to efforts by any other country or group of countries to establish such hegemony.

(8) To consolidate and develop the peaceful and friendly relations between the two countries, the Government of the People's Republic of China and the Government of Japan agree to hold negotiations aimed at the conclusion of a treaty of peace and friendship.

(9) In order to further develop the relations between the two countries and broaden the exchange of visits, the Government of the People's Republic of China and the Government of Japan agree to hold negotiations aimed at the conclusion of agreements on trade, navigation, aviation, fishery, etc., in accordance with the needs and taking into consideration the existing nongovernmental agreements.

APPENDIX D
AGREEMENT FOR JOINT US-JAPAN SDI RESEARCH AND
DEVELOPMENT

The following text is the US-Japan agreement for joint participation during the research and development phase of the Strategic Defense Initiative, signed July 21, 1987.

The government of Japan and the government of the United States of America, desiring to provide the basis for Japanese participation, in response to the invitation by the Secretary of Defense of the United States of America of March 27, 1985 and based upon the views expressed in the statement of the Chief Cabinet Secretary of Japan of September 9, 1986, in research in the Strategic Defense Initiative, which aims at enhancing stability and deterrence being carried out by the government of the United States of America, have agreed as follows:

1. It is the intention of both governments to facilitate participation by entities of Japan on the basis of equitable and genuine competition.
2. Subject to compliance with applicable laws, regulations and international obligations of each government, the government of Japan and the government of the United States of America will endeavor to permit entities of Japan and the United States of America who wish to participate in research in the Strategic Defense Initiative to compete on equal terms for contracts awarded within the scope of this agreement.
3. In order that classified information, furnished for or generated in the performance of work pursuant to specific contractual arrangements for research in the Strategic Defense Initiative (hereinafter referred to as "specific contractual arrangements"), be protected, both governments will take all necessary and appropriate measures within the framework of domestic laws of each country and agreements between Japan and the United States of America.
4. Fair and equitable treatment will be accorded to information generated by entities of Japan and the United States of America in the performance of work pursuant to specific contractual arrangements, as well as to information generated by them prior to or independently from such contractual performance.
5. Concerning the transfer of information related to the work pursuant to specific contractual arrangements, the government of Japan and the government of the United States of America will draw upon the Mutual Defense Assistance Agreement between Japan and the United States of America, signed at Tokyo on March 8, 1954, as appropriate, and this agreement.

6. Arrangements necessary to implement this agreement will be agreed upon between the competent authorities of both governments. This agreement as implemented by these arrangements will constitute the basis for Japanese participation in research in the Strategic Defense Initiative.
7. This agreement will be implemented in accordance with applicable laws, regulations and international obligations of each government, including for the government of the United States of America, those assumed under the treaty between the United States of America and the Union of Soviet Socialist Republics on the limitation of anti-ballistic missile systems, signed at Moscow on May 26, 1972, and for both governments, those assumed under the Charter of the United Nations.
8. The two governments will, upon the request of either of them, consult regarding any matter relating to the implementation of this agreement.
9. This agreement will enter into force on signature and will remain in force until six months after the date of the receipt of notice of termination by either government.

APPENDIX E

G-5 STATEMENT ISSUED: PLAZA ACCORD

*The following are excerpts from the statement issued on September 22, 1985 by the finance ministers and central bank governors of Britain, France, Japan, the United States and West Germany.*¹⁶⁹

Policy Intentions

The finance ministers and governors affirmed that each of their countries remains firmly committed to its international responsibilities and obligations as leading industrial nations. They also share special responsibilities to ensure the mutual consistency of their individual policies. The ministers agreed that establishing more widely strong, noninflationary domestic growth and open markets will be a key factor in ensuring that the current expansion continues in a more balanced fashion, and they committed themselves to policies toward that end. In countries where the budget deficit is too high, further measures to reduce the deficit substantially are urgently required.

Ministers and governors agreed that it was essential that protectionist pressures be resisted.

Ministers recognized the importance of providing access to their markets for LDC (lesser developed countries) exports as those countries continue their essential adjustment efforts, and saw this as an important additional reason to avoid protectionist policies. They welcomed the GATT preparatory meeting scheduled for late September and expressed their hope that it will reach a broad consensus on subject matter and modalities for a new GATT round.

In this context, they recalled and reaffirmed the statement in the Bonn Economic Declaration on the debt situation: Sustained growth in world trade, lower interest rates, open markets, and continued financing in amounts and on terms appropriate to each individual case are essential to enable developing countries to achieve sound growth and overcome their economic and financial difficulties.

¹⁶⁹*The New York Times*, September 23, 1985, p. 12D.

The ministers agreed that they would monitor progress in achieving a sustained noninflationary expansion and intensify their individual and cooperative efforts to accomplish this objective. To that end, they affirmed the statements of policy intentions by each of their countries.

Conclusions

The ministers of finance and central bank governors agreed that recent economic developments and policy changes, when combined with the specific policy intentions described in the statements, provide a sound basis for continued and a more balanced expansion with low inflation. They agreed on the importance of these improvements for redressing the large and growing external imbalances that have developed in that connection, they noted that further market-opening measures will be important to resisting protectionism.

The ministers and governors agreed that exchange rates should play a role in adjusting external imbalances. In order to do this, exchange rates could better reflect fundamental economic conditions than has been the case. They believe that agreed policy actions must be implemented and reinforced to improve the fundamentals further, and that in view of the present and prospective changes in fundamentals, some further orderly appreciation of the main nondollar currencies against the dollar is desirable. They stand ready to cooperate more closely to encourage this when to do so would be helpful.

APPENDIX F
RESEARCH AND DEVELOPMENT INVESTMENT IN JAPANESE
PRIVATE COMPANIES, RESEARCH INSTITUTES, AND
UNIVERSITIES: 1960-1985

(millions of yen)

Year	Private Companies	Research Institutes	Colleges/ Universities	Total
1960	73307	26804	48696	148807
1961	93107	34008	52485	179600
1962	121965	41950	69741	233656
1963	149266	49815	90012	289093
1964	180004	53829	107130	340963
1965	243900	64700	129600	438200
1966	252359	72593	183643	508595
1967	292177	82540	201914	576631
1968	378970	94078	229436	702484
1969	504351	114673	258463	877487
1970	628352	137068	299233	1064650
1971	823300	166400	365900	1355600
1972	895020	213911	423441	1532370
1973	1044930	268260	478684	1791870
1974	1301930	339747	574163	2215840
1975	1589050	409394	717585	2716030
1976	1684850	449928	839798	2974570
1977	1882230	504438	934016	3320690
1978	2109500	529522	1012300	3651320
1979	2291000	603788	1151070	4045860
1980	2664913	660391	1282451	4607755
1981	3142260	763918	1340070	5246250
1982	3630000	907000	1446000	5983000
1983	4039000	939000	1540000	6518000
1984	4560000	971000	1650000	7181000
1985	5136600	1033100	1724200	7893900

Source: Office of the Prime Minister, Japanese Statistical Yearbooks.

APPENDIX G
JAPAN'S OFFICIAL DEVELOPMENT ASSISTANCE CONTRIBUTIONS:
1960-1985

(millions of dollars)

Year	ODA	Technical Assistance	Private Funds
1960	145.0	3.0	101.0
1961	221.4	2.4	160.0
1962	167.8	3.4	118.0
1963	140.4	4.5	138.0
1964	115.7	5.8	188.1
1965	243.7	6.0	241.8
1966	285.3	7.6	253.5
1967	390.6	11.0	464.7
1968	356.2	13.7	351.5
1969	435.6	19.0	541.7
1970	458.0	21.6	669.4
1971	510.7	27.2	975.6
1972	611.1	35.6	1252.3
1973	1011.0	57.2	3647.5
1974	1126.2	63.5	1038.5
1975	1147.7	87.2	1352.4
1976	1104.9	108.1	1548.9
1977	1424.4	147.8	2487.9
1978	2215.4	221.2	6335.5
1979	2637.5	241.9	4689.0
1980	3353.0	327.0	1958.0
1981	3171.0	378.0	6011.0
1982	3023.0	393.0	2929.0
1983	3761.0	458.0	2918.0
1984	4319.0	521.0	9968.0
1985	3797.0	549.0	9332.0

Source: Office of the Prime Minister, Japanese Statistical Yearbooks.

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